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ARCHÆOLOGICAL REPORT

1900.

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OF THE

MINISTER OF EDUCATION

ONTARIO.

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T O R O N T O .

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ARCHÆOLOGICAL REPORT.

HONOURABLE RICHARD HARCOURT, M. A., Q. O.,

Minister of Education.

SIR,—Partly owing to pressure of indoor duty, and partly on account of absence from the city for a time, little or nothing has been done during the year in the way of original work. The Laidlaw collection has been re-arranged in wall cases on a plan different from the one adopted hitherto in the museum, and it is particularly pleasing to note that this arrangement is quite satisfactory to Mr. Laidlaw, the generous donor. All the specimens, (some fifteen hundred) are placed in groups, each of which represents one of the thirty-one village sites examined by the collector. Thus arranged, one can see at a glance what may be called an object picture representing in some measure the every day life of those who occupied the Balsam Lake district, and as this life did not differ very much from that of other aborigines in this province, the grouping will thus answer a general purpose. It is not, however, intended to change the arrangement of all the other specimens in conformity with this method, for each plan possesses advantages. It is not only necessary to have two systems of arrangement, but several times as many, when the quantity of material and space for display make such disposition possible.

The collection procured from Mr. J. S. Heath, formerly of Brantford, has been kept together as representative of an area comprising many sites of the Neutrals in what is now Brant county. In this collection all the objects that are similar in kind form distinct groups (as in the museum at large) but these being side by side illustrate conditions as they existed over the whole district examined.

In last report there was a preliminary account of the Mexican collection presented by Mrs. Wm. Stuart, from the pen of that lady herself. Since then, the specimens, numbering 274, have been received and placed beside similar material from more northerly points in Mexico. In addition to this gift, Mrs. Stuart has kindly placed on loan, 43 objects from the same locality as are those that form her gift, viz., the Isthmus of Tehuantepec.

An effort was made by correspondence with some of the officers and men connected with our contingents in the African service, looking towards the securing of native weapons, tools, and other ethnological articles, but so far the result seems to be almost barren, with the exception of a few brought to us by Mr. Frederick Hamilton, the *Toronto Globe* Correspondent.

When, with your consent, an opportunity was afforded last summer to visit several of the best ethnological and archæological collections in Europe, it was hoped that much would be gleaned in the shape of information respecting labels, cases, arrangement and classification of specimens, and cataloguing. This hope was realized only in part. So far as cases are concerned we have much to learn, and much which even if we knew we would fear to imitate owing to the extreme cost we should have to incur by so-doing. In European museums thousands of pounds are spent in cases of modern patterns to

secure not only elegance and commodiousness, but absolute freedom from dust and moths. So far as labels, arrangement and classification are concerned little was seen that could suggest any improvement on our own methods, and it may not be immodest to state that the Ontario Archæological Museum did not suffer much by comparison even with the collection in the British Museum. Ethnologically, however, we are far behind. In London, Liverpool, and Paris more (specially, there are magnificent collections, enabling students to compare the trend of thought and the process of development in science, as well as in art, among peoples in every stage of growth.

It is true that hitherto the main object in Ontario has been the study of primitive conditions as exemplified by its own original inhabitants, and although there is yet an immense field to be covered at home, the contents of our cases are now such as to require at least fairly good and typically representative material for comparative purposes from other lands.

The little that has already been done in this way is largely the result of appeals made by the curator for gratuitous contributions, in connection with which thanks are due to public spirited men like the Rev. Dr. Annand of the New Hebrides, the Rev. Dr. MacLean of Neepawa, Manitoba, Prof. G. S. Ramsay of California, and to such generously disposed ladies as Mrs. John Currie and Mrs. Wm. Stuart of this city, all of whom have made valuable additions to the museum. But while we may expect gifts from time to time, it is too much to look forward to the possibility of making the museum what it ought to be in a province like Ontario without the expenditure of more money than has hitherto been available. A public museum to be efficient requires as much support as a library, if not more. For a dollar or two one can buy a scientific book, or an art book, in which reference may be made to material wholly beyond the reader's reach, even if not beyond his means, or, what is even more probable, the objects he wishes to see may be so rare and so valuable that he can never hope to possess anything of the kind. Casts and models are always desirable—sometimes they are preferable to originals, e.g., as in human heads illustrating racial types, or methods of tattooing, and these are procurable only for cash. A museum like ours ought to have a large number of such casts, whereas there is not one. The student should have an opportunity to compare the crania of numerous divisions of our race, but those of distinct peoples can be got by purchase only, unless some fortunate opportunity occur to effect an exchange.

All the case-room in the museum is occupied, and many of the cases, especially those on tables are not only out of keeping with the other fittings of the rooms, but are unsafe receptacles for valuable articles. Should we acquire even the average number of specimens during the following year, it will be difficult to find room without crowding what is already installed.

It cannot be repeated too often that a museum is no place for what is merely curious. Apart from educational value no object is worthy of room in any collection except it be in a collection of bric-a-brac. Curiosities, as such, have a value only when they serve to illustrate some departure from natural law

or from well-established popular custom. On the other hand, as Prof. E. S. Morse has said, "What seems a worthless object to the minds of the multitude becomes at once endowed with interest when carefully framed or mounted, and clearly labeled."

Mr. F. T. Mott, one of a British Association Committee on the museums of the United Kingdom, has written, "Museums, free libraries and art galleries have this in common; that they are each expected to fulfil two purposes which are somewhat incongruous, and require to be pursued by different methods and with different appliances. Each of these institutions is expected to minister to the wants both of trained students and of an untrained and ignorant public; and the demands of these two classes of persons are so diverse that they must be provided for separately. The free library must have its lending department for the general public, and its reference department for students. The art gallery must have attractive and interesting pictures for ordinary visitors, but it must also have masterly studies for the instruction of young artists. The museum, however, has a still more difficult and complex part to play. It has not only to provide for the diverse wants of students and of visitors. but it has also to contribute to the general progress of scientific knowledge. Every museum . . . which is a public and in some sense a national institution, has a three-fold duty: (1) to the nation at large, (2) to the students of the neighborhood, and (3) to the local public. If museums are ever going to be more than a confused compound of the curiosity shop and the peep-show, which is what very many of them are at present, this three-fold purpose must be very clearly recognized, and means must be found for the efficient carrying on of each department." Quoted by Prof. Morse in U. S. National Report for 1893. P. 777.

There are now upwards of twenty-two thousand specimens in our cases illustrative mainly of American archæology and ethnology, and of them, by far the greater number are from our own province.

As soon as possible the contents of the two rooms should be re-arranged so as to place the ethnological material in one and the archæological in the other. Perhaps it would be a good time to effect this change before the replacement of the specimens about to be exhibited at the Pan-American Exposition in Buffalo.

I have the honor to be

Your respectfully,

DAVID BOYLE.

ACCESSIONS TO THE MUSEUM.

- 21,768. Small and gracefully formed stone pipe, from W. C. Perry, Winnipeg.
- 21,769. Piece of Tasso's oak. Geo. Vair, Toronto.
- 21,770. Cast of bird amulet. Sec. 3, Oneida tp., Eaton Co., Mich., U. S. A.;
C. V. Fuller, Lansing, Mich.
- 21,771. Bird amulet (cast). Watertown tp., Clinton Co., Mich., U. S. A.
C. V. Fuller, Lansing, Mich.
- 21,772. Bird amulet (cast). Sec. 3, Oneida tp., Eaton Co., Mich., U. S. A.
C. V. Fuller, Lansing, Mich.
- 21,773. Bird amulet (cast), Eagle tp., Clinton Co., 1 mile north, Sec. 3.
C. V. Fuller, Lansing.
- 21,774. Bird amulet (cast). Eagle tp., Clinton Co., 1 mile north-west of
Sec. 3, Oneida tp. C. V. Fuller, Lansing.
- 21,775. Small model of dug-out cedar canoe, made by a Mississauga boy,
Patton tp., Algoma. Mr. S. James.
- 21,776. Eskimo dog-whip, bought by Mr. G. Boucher, at Ungava Bay,
Labrador, and presented by John H. Burnham, Peterboro.
- 21,777. Maple-sap skimmer. Ojibwa, Manitoulin Is. Made by a native for
Mr. F. W. Waugh, 1899.

MRS. STUART'S COLLECTION.

- 21,778 9. Two fan-shaped pieces of sheet or thin copper. Union Hidalgo,
about 20 miles from San Geronimo, Mexico.
- 21,780. Clay olla. Found near San Geronimo, Mex., in 1895.
- 21,781. Clay olla (shoe shaped), Chuichitan, Mex.
- 21,782. Olla, apparently of cement, " "
- 21,783. Ollita, round—red clay, " "
- 21,784. Ollita, white clay with hollow handle, Chuichitan, Mex.
- 21,785. Small ollita-like clay amulet, San Geronimo, Mex.
- 21,786. Large human clay head, Ixtaltepec, Mex.
- 21,787. Small and rudely formed clay figure. Short legs. From Chuichitan,
Mex.
- 21,788. Monkey's head, clay, Ixtaltepec, Mex.
- 21,789. Image head, clay, flat behind, part broken off, Mex.
- 21,790. Small red image of woman, clay, broken off at waist, Mex.
- 21,791. Image head, clay, Mex.
- 21,792. Large sized, red clay head, Mex.
- 21,793. Little pendant figure, hole at top of head, arms and legs broken off.
Chuichitan, Mex.
- 21,794. Greyish white head, clay. Two holes at neck, Mex.
- 21,795. Head in red clay, Mex.
- 21,796. Fox's head in white clay, Mex.
- 21,797. Body of image, clay, Mex.
- 21,798. Head and chest of image, found at San Geronimo, Mex.
- 21,799. Rhinoceros-looking head, clay, Union Hidalgo, Mex.

- 21,800. Head and chest of image, like a rabbit, clay, Chuichitan, Mex.
 21,801. Head of image—pot adornment. Union Hidalgo, Mex.
 21,802. Head of image—very dark colour, with long cap. Found at San Geronimo, Mex.
 21,803. Clay Image, partly broken, San Geronimo, Mex.
 21,804. Clay chest of image with necklace, Mex.
 21,805. Head in red clay, Mex.
 21,806. Negro-like head, with neck, San Geronimo, Mex.
 21,807. Red clay head, with necklace, “ “
 21,808. Small perfect red clay image, “ “
 21,809. Small head and chest of image, clay, San Geronimo, Mex.
 21,810. Bird's head (Zopilote), San Geronimo, Mex.
 21,811. Image, head of woman, red clay, San Geronimo, Mex.
 21,812. Figure of dog (?) clay, Union Hidalgo, Mex.
 21,813. Child's rattle in grey clay, Chuichitan, Mex.
 21,814. Monkey head, possibly a pipe bowl, Union Hidalgo, Mex.
 21,815. Head, pot ornament, found at San Geronimo, Mex.
 21,816. Little quartz (?) image, bought in “ “
 21,817. Perfect little head, with neck, clay, Union Hidalgo, Mex.
 21,818. Similar style of head, neck broken, clay, “ “
 21,819. Negro type of head, clay, Union Hidalgo, Mex.
 21,820. Supposed to be a rattle or whistle, San Geronimo.
 21,821. Pendant, found on surface beside large mound.
 21,822. Small hand, clay, San Geronimo, Mex.
 21,823. Fragment of large clay face.
 21,824. Painted olla, San Geronimo, Mex.
 21,825. Pipe stem, or dish handle, Union Hidalgo, Mex.
 21,826. Pipe stem (small), or dish handle, “ “
 21,827. Stamp or seal, clay, Ixtaltepec, Mex.
 21,828. “ “ “ “
 21,829. “ “ San Geronimo, Mex.
 21,830. “ “ “ “
 21,831. “ “ “ “
 21,832. Clay article, cylindrical, probably a stamp, Miss Elsie Stuart.
 21,833. Olla ornament, clay, San Geronimo, Mex.
 21,834. Pot leg, clay, “ “
 21,835. “ “ “ “
 21,836. “ “ “ “
 21,837. “ “ “ “
 21,838. “ “ “ “
 21,839. “ ornament—clay, “ “
 21,840. “ “ “ “ “
 21,841. Stone hammer, found on surface in a wild place full of brush, San Geronimo, Mex.
 21,842. Stone hammer, found on surface in a wild place full of brush, San Geronimo, Mex.

- 21,843. Broken axe, San Geronimo, Mex.
 21,844. Stone pestle, " "
 21,845. Smoothing stone, " "
 21,846. Stone axe, Union Hidalgo, "
 21,847. " " "
 21,848. Axe, San Geronimo, "
 21,849. Small stone axe, San Geronimo, Mex.
 21,850. Stone axe, " "
 21,851. Copper axe, Union Hidalgo, Mex.
 21,852. Stone chisel, San Geronimo, "
 21,853. Broken chisel, " "
 21,854. Tip of flint (?) chisel, San Geronimo, Mex.
 21,855. Number of obsidian articles, San Geronimo, Mex.
 21,856. Smoothing stone (?) " "
 21,857. " " " "
 21,858. " " " "
 21,859. Fragments of chalcedony, San Pablo, Mex.
 21,860. Clay bowl, shallow, imperfect, San Geronimo, Mex.
 21,861. Number of sinker (?) balls, " "
 21,862. Five beads or balls, Ixtaltepec, Mex.
 21,863. Beads (?) San Geronimo, Mex.
 21,864. Two spindle whorls (?). "
 21,865. Pamice stone—Isthmus of Tehuantepec.
 21,866. Coral—2 old pieces, broken off large blocks used with
 blocks of stone, in building old Fort at Coatzacoal-
 cos on Isthmus.
 21,867. Indigo from Isthmus.
 21,868. Tamarinds.
 21,869. Large seed pod (?), San Geronimo, Mexico.
 21,870. Red seeds and pods, " "
 21,871. Specimens of Isthmus coffee.
 21,872. Bottle containing two snakes.
 21,873. " " Tarantula, Scorpion, etc.
 21,874. " " Cast skin of snake.
 21,875. Tiny nest of unknown bird.
 21,876. Two nests of Golden Oriole, San Geronimo, Mex.
 21,877. Butterflies, Insects.
 21,878. Various small clay articles found at San Geronimo.
 21,879. Stone beads or pendants.
 21,880. Black clay head " "

Transferred
to the
Biological
Section.

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- 21,881. Bird amulet, lot 18, Oulross tp., Bruce Co., R. McDonald.
 21,882. Small olla (with long nosed grotesque face), Mexico, Dr. Fuzier,
 Paris, France.

- 21,883. Clay vessels, somewhat imperfect, found by Emerson Grobb in crevice on the face of the "Mountain," lot 10, con. 5, Clinton, tp., Lincoln Co. Presented by T. W. Moyer, Campden.
- 21,884. Silver finger ring.
- 21,885. Pair of silver bracelets.
- 21,886. Silver earrings (colored glass settings).
- 21,886. " (plain).
- 21,887-22,015. Silver brooches.
From 21,884 to 22,015 formed heir-looms in a Tuscarora family (Carrier) on the Grand River Reserve, Ont., and were purchased from Miss Emily Carrier.
- 22,016. Cast of elephant pipe found near Davenport, Iowa, John H. Hume.
- 22,017. Small three-barbed harpoon (bone), lot 13, con. 2, York E. E. A. James, Thornhill.
- 22,018. Model of Iroquois cradle, Six Nation Reserve, Grand River, Ont., Miss Emily Carrier.
- 22,019. Slate slick stone, engraved with human figure and zig-zag lines, Roebuck, Augusta tp., Grenville Co., Ont., A. S. Gerald, Prescott.
- 22,020. Soapstone pipe, Spencerville, Edwardsburg tp., Grenville Co., A. S. Gerald.
- 22,021. Soapstone pipe, Roebuck, Augusta tp., Grenville Co., A. S. Gerald.
- 22,022. Huronian slate tube, North shore, Charleston Lake, Escott tp., Leeds Co., Arthur Brown, Pub. Sch. Insp., Morrisburg.
- 22,023. Clay pipe, Roebuck, Augusta tp., Grenville Co., Ont., A. S. Gerald, Prescott.
- 22,024-6. Three bone needle cases, Ungava Bay, Labrador, A. S. Gerald, Prescott.
22027. Toggle harpoon head, Ungava Bay, Labrador, A. S. Gerald.
22028. Bear's tooth, large, perforated on each edge, Labrador, A. S. Gerald.
22029. Stone axe or adze, side flat, found in a gravel pit near Thamesford, Arnold Payne, Thamesford.
22030. Rubbing stone, Hudson R. shale, Spencerville, Edwardsburg tp., Grenville Co., A. S. Gerald.
22031. Wooden cup, Indian grave, Roebuck, Augusta tp., A. S. Gerald, Grenville Co.
22032. Pestle, Vernon village, one of only two found in Okanogan Valley, B.C., W. C. Perry, Winnipeg.
22033. Pestle Spence's bridge, Thompson R., B.C., Mr. Ogle, per W. C. Perry, Winnipeg.
22034. Handle of pestle, Kamloops, Indian burying ground, junction of N. & S., Thompson Rivers surface, W. O. Perry, Winnipeg.
22035. Stone pipe, large, carved by Indian Jim of Ft. McLeod, Alta., W. C. Perry, Win.

22036. Model of steamer "William IV.," built at Gananoque in 1832. From the estate of Mrs. Henrietta McDonald, widow of the late Hon. John McDonald, one of the steamer's owner's. Per Judge Herbert S. McDonald, Brockville.
22037. Stick (notched) with shell beads sent as an invitation to attend the New Year's Feast and burning of the White Dog at Seneca Long-house, Grand River Reserve on Feb. 7 and 8, 1900.
22038. Soapstone pipe, lot 27, con. 6 Luther East. Found by Alex. Jas. Blair, Tarbert.
22039. Bird amulet, found by Mr. Broderick and Mr. Anderson while dredging the Morrisburg Canal. Per J. A. Jackson, M.A.
- 22040-5. Six small arrow heads, Medicine Hat, N. W. Territory. Per W. C. Perry, Win.
22046. Pestle (very fine and perfect) Knob Hill, Comox, British Columbia, John B. Boyle, Phoenix, Brit. Col.
22047. Chain (cast solid—loose links) made at meeting of British Assoc., Bradford, 1900, to show the Malayan method of performing such work.
22048. Fifty fragments of pipe stems and parts of bowls. Walker and Sealey farms, Brantford township.
22049. Fifteen fragments showing rude attempts at pottery making. Walker and Sealey farms.
22050. Thirty-one human teeth. Kitchen middens, Brant County.
22051. Two bear's teeth. Kitchen midden, Brant County.
- 22,052. Teeth of beaver, squirrel, etc. Kitchen middens, Brant Co.
- 22,053. Beaver teeth, and three jaws of small animals. Kitchen middens, Walker & Sealey farms.
- 22,054. Bear's jaw and teeth. Kitchen middens, Walker & Sealey farms.
- 22,055. Twenty-one pieces of deer horn. Kitchen middens, Walker & Sealey farms.
- 22,056. Bone beads and fragments of deer horn. Kitchen midden, Walker & Sealey farms.
- 22,057. Five pieces of unworked deer horn. Kitchen middens, Walker & Sealey farms.
- 22,058. Fragments of antlers from various places in Brant county.
- 22,059. Miscellaneous antlers from various places in Brant county.
- 22,060. Human jaw. Sealey farm, Brantford township.
- 22,061. Fish hook of bone and iron. Peel and MacKenzie Rivers, N.W.T. Rev. Chas. E. Whittaker.
- 22,062. Maple knot bowl, presented to Mrs. Phillip Sovereign, of Bronte, Ontario, by Captain Joseph Brant. Mrs. Sovereign gave it to her daughter, Mrs. Fitzpatrick, who in turn gave it to her daughter Anna, now Mrs. John McNab, who presented it to the museum per her son, Mr. Donald G. McNab.

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- 22,063. Large, well-made, slightly grooved stone axe, lot 29, con. 3, West York. Donald G. McNab.
- 22,064. Chief's iron pipe tomahawk, lot 28, con. 3, West York, Ont. Donald G. McNab.
- 22,065. Blanket or rug, spun and woven from mountain-goat hair by the Indians of Nanaimo, British Columbia. Dr. A. P. Coleman, professor of Geology and Mineralogy, School of Practical Science, Toronto.
- 22,066. Fragments of pottery, village site near Glenville, N.Y. P. M. VanEpps and Louis Albrand.
- 22,067. Grass, used by natives of Hawaii for ornamenting their dresses.
- 22,068. Arrowhead, Stony Island Avenue, opposite 63rd street, World's Fair Grounds. David Boyle.
- 22,069. Copper punch (?) Oshkosh, Wis. Mrs. Kate Culver, Springfield, Ill.
- 22,070. Squash seeds, Cliff Dwellings, Dirty Devil river, Wayne Co., Utah. Don Maguire.
- 22,071. Arrowhead, Cliff Dwellings, San Juan river, Utah. Don Maguire.
- 22,072. Scraper, Cliff Dwellings, San Juan river, Utah. Don Maguire.
- 22,073. Fragments of pottery, San Juan river, Utah. Don Maguire.
- 22,074. Beans from sealed vase, San Juan river, Utah. Don Maguire.
- 22,075. Corn cobs, San Juan river, Utah. Don Maguire.
- 22,076. Set of playing cards, Southern China Rev. Mr. Westervelt, Chicago.
- 22,077. Fish spines, used as needles, village site, Solid Comfort Camp, Port Colborne.
- 22,078. Wampum beads (11), Brant County. F. Christie, Brantford.
- 22,079. Leaf shaped arrowhead, Pilkington t'p, Wellington County. David Boyle.
- 22,080. Rough or unfinished chert tool, Pilkington t'p, Wellington County. David Boyle.
- 22,081. Small flint tool, Pilkington t'p, Wellington County. David Boyle.
- 22,082. Beaver's jaws, village site, Smithdale, Simcoe County. G. Loughheed.
- 22,083. Modern iron arrowhead, Sioux, Dakota.
- 22,084. Peculiarly grooved axe, Fairfield t'p, Shiawassee County, Michigan. P. F. VanDeusen, Farland, Michigan.
- 22,085. Slightly grooved axe, Fairfield t'p, Shiawassee county, Michigan. P. F. VanDeusen.
- 22,086. Axe, medium plain, Fairfield t'p, Shiawassee county, Michigan. P. F. VanDeusen.
- 22,087. Axe, large, plain, Fairfield t'p, Shiawassee county, Michigan. P. F. VanDeusen.
- 22,088. Axe, wide, small, Fairfield t'p, Shiawassee county, Michigan. P. F. VanDeusen.
- 22,089. Arrowhead, Fairfield t'p, Shiawassee county, Michigan. P. F. VanDeusen.

- 22,090. Gorget, Fairfield t'p, Shiawassee County, Michigan. P. F. Van-Deusen.
- 22,091. Tapa Oloth, Society Islands. David Boyle.
- 22,092. Nephrite pebble sawn by natives for tool-making, Port Hammond, British Columbia. J. C. Ross, Gore Bay, Manitoulin Island.
- 22,093. Stone pestle, Port Hammond, British Columbia. J. C. Ross, Gore Bay, Manitoulin Island.
- 22,094. Copper axe or chisel, McKellar t'p, Parry Sound. J. M. Ansley, St. Catherines, per Miss Elizabeth Ansley.
- 22,095. Curved chert scraper, lot 10, con. 5, North Dorchester. B. F. Sharpe.
- 22,096-9. Arrowheads, lot 27, con. C, Scarboro' t'p. Robert Martin, Scarboro'.
- 22,100-2. Three fine arrowheads, Rondeau Point, Kent County. W. Jull.
- 22,103 6. Four flints, Rondeau Point, Kent County. W. Jull.
- 22,107-8. Bracelets of copper or brass wire (wire said to be of native make) coiled round a core of horsehair, Baralong village, (Basuto) near Toba Mountain, Orange River Colony. Pattern common, but not distinctively tribal. Lieut. Frederick Hamilton, Globe correspondent.
- 22,109. (Basuto) nose-cleaner, used now only by old people, attached to brass blanket-pin of native make of European material, and ornamented with European beads. Got from an old woman twenty miles north of Sand River, Orange River Colony. Lieut. Frederick Hamilton.
- 22,110. Powder horn, Basutoland native make, from body of Basuto Chief Moirosse after a battle in South Africa. Mr. Saunders per Lieut. Frederick Hamilton.
- 22,111. Snuff-box used by one of the Basuto tribe of Negroes. Mr. Sanders per Lieut. Frederick Hamilton.
- 22,112-13. Strainers, used by the Basutos in making native beer. Lieut. Frederick Hamilton, Globe correspondent.
- 22,114. Snuff box made from a small gourd. Lieut. Frederick Hamilton, Globe correspondent.
- 22,115. Horns corresponding to service medals, a horn for each big fight, worn by the C'unquaauns, a Zulu branch, near Delagoa, South Africa. Lieut. Frederick Hamilton, Globe correspondent.
- 22,116. Private purse (wooden) Zulu. S. Africa.
- 22,117. Human mask from clay pipe. Found near south shore of Lake Simcoe, York County. David Boyle.
- 22,118. One stemless catlinite pipe, from a Cree at Portage la Prairie, Man.
- 22,119. One stem catlinite pipe, from a Sioux, at Portage la Prairie, Man.
- 22,120. Religious offering used in connection with dances, Rolling River, n. w. of Minnedosa, Man., at foot of sun-dance pole.
- 22,121-2. Two bead-work moccasin flaps, Portage la Prairie, found near a tent in an Indian village (Sioux).

- 22,123. Stone hammer, grooved, water-worn stone. South shore Lake Manitoba, Man.
- 22,124. Model of sun-dance pole, etc.
From 22,118-24 are the gifts of Harry Laidlaw, Esq., 36 Fuller street, Toronto.
- 22,125. Zulu girl's dress (Basuto) Vet River, South Africa. Lieut. Fred. Hamilton.
- 22,126. Seven bone, claw-like beads, on a string of horse-hair, Basuto. Lt. Fred. Hamilton.
- 22,127. String of 7 shells and 7 wooden beads (very large). Lieut. Fred Hamilton.
- 22,128. Bangle bracelet of blue beads, Basuto. Lieut. Fred. Hamilton.
- 22,129. Horn comb, five prongs, incised decoration, Zulu. Lieut. Fred. Hamilton.

NOTES.

Primitive man was only deficient—not absolutely defective in originality. Somewhere among the folds of his brain there was that which, in at least a small degree, incited to originality or novelty in the form, adaptation and ornamentation of his weapons, tools and utensils. His conservatism was rather of a generic than of a specific character. All his hammers, axes and arrowheads of stone—all his needles or awls, fishhooks and harpoons of bone and horn, all his stone and clay vessels were true as to type, while occasionally varying very much in matters of detail. Such variation was, no doubt, often merely the result of accident, or exigency. The cleavage and fracture of stones and bones were not always along desired lines, and for this reason the workman had to adapt his ideas in some measure to the form of his crude material. Nothing can be more certain than that such unintentional modifications sometimes proved highly advantageous, in which case, attempts would subsequently be made to imitate them. Apart from this, however, there is just as little doubt that the aboriginal worker actually devised improved forms, and, in course of time, invented new tools. On any other supposition progress was impossible, and it is therefore a mere truism to say that the degree of a people's advancement in civilization marks the degree of that people's originative and adaptive ability, for what holds good in this way with respect to handicrafts is true also in matters of government, as well as every in other relation of life.

It would, however, be manifestly unfair to judge wholly with respect to a people's mentality simply by the standard of mechanical contrivances as exemplified by those in common use. Yet, we often find opinions regarding primitive conditions of society, formed thus, superficially. The very closest and keenest examination may fail to reveal to us the use or purpose of an artifact, and even when this is known, as in the case of say, a hammer, or a spear-head, we are yet totally in the dark respecting numerous expedients and

devices in which such an object may have been employed, utterly foreign to the original purpose. A hammer-stone, for example, may have been used temporarily as a sinker, as a target, as a missile, as a prop, as a wedge or in some game; and we may never guess how many mechanical expedients involved the use of celts, gouges, chisels, and tools of bone and horn. We shall never know to what extent the lever was employed, if employed at all otherwise than as a paddle, or as a brace; and we must remain in ignorance respecting many aboriginal devices connected with everyday occupations.

But after making every reasonable allowance, we cannot fail to be struck with the fact that notwithstanding so much apparently possible progressiveness our aborigines did not apply much of their knowledge in such way as would have tended to make life more enjoyable, or at any rate more tolerable. Of inventiveness, in our sense, they had no knowledge, or they would have devised many plans to ease their labors simple as these were. American Indians everywhere, made disks of clay and of stone for use in games and as spindle-whorls. They even pierced some of these with a central hole which might have suggested an axle, yet they never hit upon the idea of constructing even the simplest form of a wheeled vehicle. They must frequently have seen the effect of fire on metalliferous stone, but it was not until the European came that North American Indians (not including the ancient Mexicans) attempted to melt a metal. Smelting has never been attempted by them. In this respect, as in some others, they were behind several African tribes which not only possessed the art of smelting, but had among them many persons who could fabricate tools, weapons and ornaments from the iron and copper thus produced. Our Indian was well acquainted with the patterns produced on clay vessels by means of twisted strings and basket-work, but he got no nearer to the stamp thus suggested than to use a bone or a reed sometimes, for the purpose of incising small circles on his clay-vessels. Even this simple device, so far as Ontario is concerned, seems to have been employed only by the people who lived in Victoria county, as may be seen by a comparison of fragments in the Laidlaw collection with those from other places. In Mexico the art of stamping was well known, many of the stamps or seals being of elaborate designs, and on looking at these one wonders to think how near the ancient people of that country had come to the art of printing, and yet we know that the Chinese remained on a similar verge for centuries.

Perhaps the most signal failure on the part of Canadian and Northern United States Indians to take advantage of experience and circumstances to improve their condition is shown by their indisposition, or by their inability to better their dwellings. Disease and death consequent on exposure in rickety structures of bark and skins taught them no lesson. Wood and clay were everywhere abundant, and the making of a comparatively comfortable house would have involved much less work than the forming of a canoe, yet they continued to live in structures, which, at best, were little more than wind-breaks.

Judging from what we know, therefore, respecting the Indians in this part of the continent, at the date of discovery and since, it can scarcely be

said that they were on the high road to civilization. Although it might be improper to characterize their mental state as one of arrested development, it was certainly a case in which development was very much retarded.

Compared with the Maoris and many African peoples, they have proved deficient in what may be called receptivity, while, if we place them side by side with the Black Fellows of Australia, we find the advantage in favor of the Indians.

Along certain lines, however, it is observable that here and there communities have made considerable progress. This is especially true where the art instinct is concerned—a fact which scarcely corresponds with what our unaided reason would lead us to conclude, for we are disposed to regard advancement in art and in civilization as being synchronous if not almost synonymous. Omitting for this purpose all reference to the Aztecs, we know that the pottery products of many southwestern localities were characterized by graceful, as well as diversified forms. Ornamentation was often effected by means of relief, which is greatly in advance of incision or depression for decorative purposes. Imitations of human and lower animal heads were not uncommon, and sometimes the bodies of fish and frogs were represented.* Neither were the vessels in question invariably made round-bottomed as in the north, for some are flattened, some are supplied with a basal collar, while a smaller number are provided with three feet; the best possible method to secure steadiness on an uneven surface.

The people who lived near the sources of native copper often introduced new shapes, and they ultimately adopted, if they did not invent the socket instead of the tine or tang for handle attachment. Besides this, they sometimes hammered out forms of a very unusual kind, the uses of which remain to us only as matters of surmise.

Among the northern tribes perhaps the greatest amount of originality was evinced by them in the making of their pipes, whether of clay or of stone. While a few forms maintained their ground, or were characteristic of specific periods as some writers claim, it is equally true that in a very large number of cases the pipe-makers seemed to aim at having something different from anything made before, the variations being connected mainly with the representations of animal life. The human face was a favored subject, and sometimes the whole body was attempted, although in a highly conventionalized form, which seldom varied very much.

The only conclusion we can arrive at with respect to this condition of things is that the Indians, like many other peoples, possessed the power of advancement only to a limited extent, and in a few directions, and that this power was possessed by only a few persons at a time. Why this should be so is more easily asked than answered. Among ourselves there are many

* Among some hundreds of clay pipe heads in our collection there is but one which, by stretch of imagination, may be regarded as imitative of vegetal life. It is perhaps meant to represent a bit of a branch or stem covered with knots or spines.

A few pieces of Pueblo pottery are ornamented with leaf patterns, and it may be mentioned that a small vase of red clay from Chimbote, Peru, has relief representations of heads of maize.

individuals constituted after the manner of normal primitive man. Some we refer to as lazy, some slow, some as stupid, and some as old-fashioned, or conservative—all are atavistic in these respects.

The condition of civilized as compared with that of primitively-minded peoples differs mainly in respect of the fact that among the former there is an enormously greater tendency to adopt, to adapt, to assimilate and to originate.

In Peru and Mexico the progressive power was possessed in a considerably higher degree than elsewhere in America, but even among the natives of these countries the limit was a narrow one from our point of view, and it had probably been reached centuries before the discovery.

THE HUMAN FORM IN INDIAN ART.

It has already been mentioned that where the decorative and ornamental were concerned the Indians showed some tendency to advancement, and that evidence to this effect was most observable in the diverse forms of tobacco pipes. Omitting for the present purpose reference to all but those bearing representations of the human head or of the whole body, a comparison of the designs may be here made.

At the very outset it may be taken for granted that all such attempts at imitating the human features were of a very general kind ; in other words, the primitive artist did not aim at portraiture in the exact sense. If he did, his intentions have proved failures. Indeed, it would have been marvellous had he succeeded in giving individual expression to his work, for the ability so to do is one of the highest achievements in art. It is not improbable that he sometimes tried to represent a broken nose, a blind eye, a wry face, or some conspicuous arrangement of hair, but that was all. It cannot be said that he even caught the typical features or expression of his race. One often hears the remark made that such a face, in clay or in stone, is a "regular Indian one," but expressions of this kind are the result of fancy rather than of fact.

Early attempts at imitation of any kind are always of a very simple character and strongly resemble sometimes what, in course of time, we are pleased to call conventionalized forms, on the supposition that they have been so evolved for artistic purposes from correct representations of the objects in question, whereas the truth may be that they are simply examples of persistence from the dawn of art, through a few or through many stages of progress, yet they are none the less conventionalizations, although in a different sense.

The efforts of a kindergarten pupil, or of any untaught child, to "make a man" correspond in results to that of the savage who undertakes to produce a similar drawing, and whether we say in this, or in any other connection, that the savage is but a child, or the child a mere savage is quite immaterial. In either case we mean that there has not been developed more than the crudest ideas of comparison and proportion. It is inevitable that that there shall be a head, however unlike it may be to a head ; but necessary as

we would also suppose arms and legs to be, we often find one or other pair of limbs omitted. When arms are supplied they may spring from any part of the body, should there be a body, and the legs may appear to proceed immediately from the head.

Miss McIntyre, Director of the Provincial Model Kindergarten School, and Miss Lilian Dent, Director of one of the city Kindergarten schools, have very courteously supplied me with a number of drawings made by boys and girls between four and five years of age. The only direction these pupils received was just to "draw a man," and some of the results are here reproduced.

Fig. 1, which represents two men, could scarcely be more simple. In *a* the legs proceed directly from the head (the artist himself said so), but in *b* there is a line marking off the body from the lower limbs; in neither case, however, have arms been provided.

In these respects Fig. 2 is no better, but we have eyes, nose and mouth given, and a hat.

Fig. 3, of the goblin type, has a body, but no arms, and no feet. Indeed feet are often neglected, although legs are given.

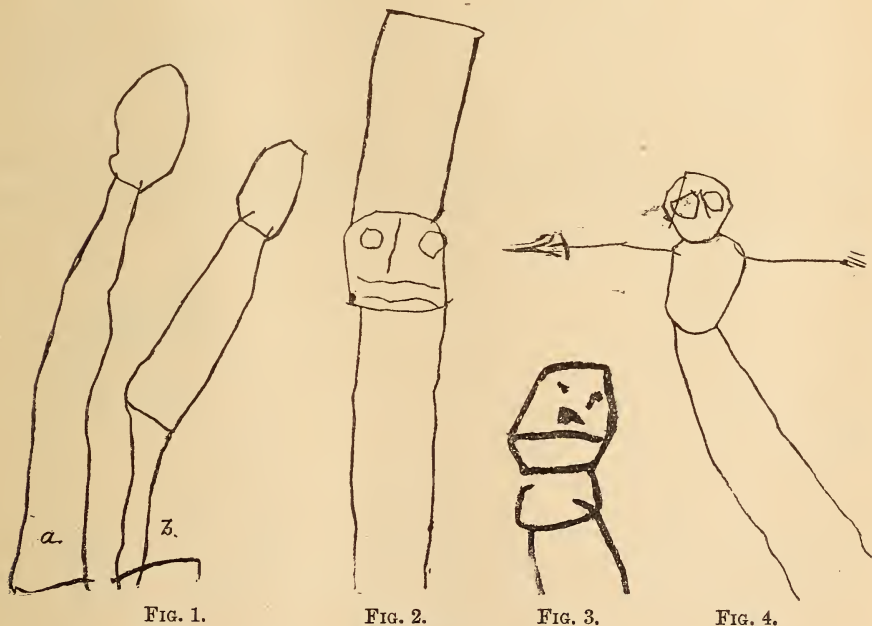


FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

We have not only arms and legs in Fig. 4, and the former coming from the right part of the body, but there is no attempt to show feet, and only four fingers are shown on each hand. Eyes and nose appear in the face, but no mouth.

The young draughtsman of Fig. 5 aimed at some details. He supplies hair, and digits, but is short of the count on the feet. One of the most noticeable features here is that the arms spring from the head—a not uncommon thing in such drawings.

Fig. 6, a pretentious attempt to depict a policeman (especially his buttons), is also apparently armless, but the artist assured his teacher that what



FIG. 5.



FIG. 6.

seems to be a pair of very unsymmetrical ears are really arms. Eyes, nose and mouth are shown, but the nose occupies a place above the eyes. The tuft below the mouth is a beard.



FIG. 7.



FIG. 8.



FIG. 9.

If Fig. 7 is not bold it is nothing. The face has all the chief features, however difficult it may be to identify them, and the arms occupy low positions on the body.

Girls of the same age as the boys do no better. Fig. 8 is remarkable for its simplicity, and, like Figs. 9 and 10, has no body or arms. In Fig. 9 there is hair on the head, but no nose, unless what seem to be eyebrows are meant to represent a nose. Figs. 9 and 10 have feet.

The child who drew Fig. 11 had more in her mind than she could express, although she made the attempt. In the quadrangular head we may trace the main features, but very much out of place. The lines—one at each side of the head—are arms, while the portion of the drawing below, and to the left is meant for legs, which, in accordance with this conception, need not have any connection whatever with the body, or, rather with the head.

Fig. 12 is not so bad in many respects, but the most noticeable thing about it is the prominence given to the heels of the boots. Perhaps the child had an admiration for the high-heeled kind of foot-gear sometimes worn by ladies.



FIG. 10.

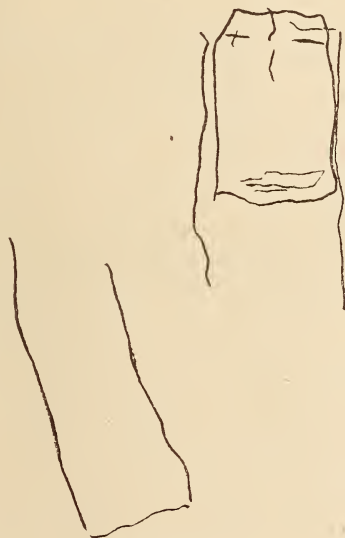


FIG. 11.

Fig. 13 is noteworthy on account of the attempt to bring out a full-face and side view at the same time, but the arms, as usual, are out of place. Still, this is the work of a child who has had considerable experience in drawing after her own style, as may be seen from the hat, the hair (conventionalized already), the eyebrows, and the shading of the legs.

A slight examination of these diagrams is sufficient to show the confusion of mind on the part of the children with respect to an object of which they have seen scores of examples daily, almost from the time of birth. It is to be observed that the head is never omitted, and Miss McIntyre informs me that this part is always drawn first. This corresponds with my own observation, where hundreds of children were concerned, but the placing of the features seems to puzzle the child-artist quite as much as the getting of the

limbs where they ought to be. Only in one instance (Fig. 1) are the features wholly neglected. In no case is the face shown in profile which in after years becomes the favored method.



FIG. 12.

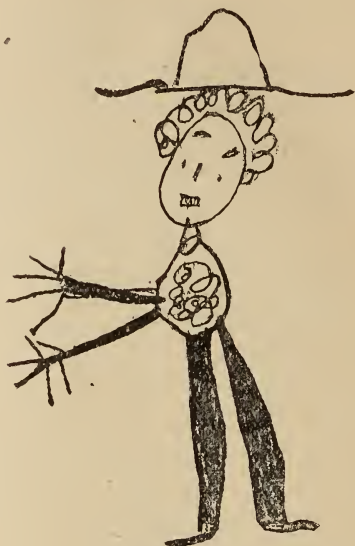


FIG. 13.

Notwithstanding the crudity that characterizes these drawings, it is undoubted that the children who made them were influenced more or less by pictures they had seen in books and elsewhere, and for this reason we may suppose the work to be all the better done.

It was intended to introduce here a few illustrations to show the resemblance that exists in many points between these and Indian drawings, but want of time must be urged as a plea for the omission. To those who are acquainted with aboriginal sketches of the human form this want will scarcely be observed, while, to those who are not it may simply be stated that many correspondences exist in both kinds of drawing.

THE HUMAN FACE IN CLAY.

In plastic representations of the human form, as well as in many of those produced in stone the Indian has worked more successfully. Numerous figures testifying to this fact have appeared in former reports, and the following series from the Laidlaw collection will more fully illustrate it :



Fig. 14— $\frac{1}{2}$ dia. was found on lot 5, con. 5, Bexley.

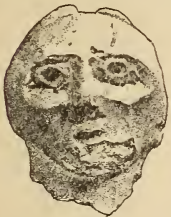
Rough in finish as is figure 14, it is very remarkable in several respects, perhaps the chief of which is the life-like character imported to it by the depression from the nostrils to the mouth. The eyes are mere hollows, rudely made, but the mouth is more carefully formed, showing both lips; and two holes not larger than if made by pin-points, indicate nostrils. This specimen

Figure 15 is from the same farm, but, totally different in treatment. The eyes have been made with a round-pointed tool, the nose is not sharply marked off from the cheeks, the nostrils are carelessly indicated, and the same may be said of the mouth which is only four upright indentations to suggest teeth. In this and the preceding cut the depression over the brow may have been meant to show how the hair was worn. In figure 14 a similar mark should have been somewhat deeper.

Fig. 15— $\frac{1}{2}$ dia.Fig. 16— $\frac{1}{2}$ dia.

Rougher still than figure 15 is figure 16, yet bolder and more animated—more so than the small cut shows. Eyes and mouth are disproportionate, angular hollows, while what is meant for nostrils are punctures on the upper lip, quite as much out of place as if made by any child. Lot 12, con. 1, Fenelon township.

In figure 17 we have another example of child-like treatment. No attempt has been made to model a nose beyond making the clay just a little higher in the middle and marking nostrils with a small pointed tool. As in figure 15 the mouth is shown by means of four upright depressions giving the effect of teeth. The eyes have been carefully made—a ridge surrounding a deep hollow in the middle of a shallower one. The back of the head terminates in a point, the whole posterior portion being a low cone. This also probably had reference to some fashion in hair-dressing. From lot 9, con. 3, Bexley township.

Fig. 17— $\frac{1}{2}$ dia.Fig. 18— $\frac{1}{2}$ in dia.

An extremely expressive face is figured here. Like all the rest in this series it is from the bowl of a pipe, and from what remains of the bowl behind, the whole of this mask from the under edge of the eyes rose above the rest of the margin. In this specimen the eyes are modeled similarly to those in figure 17, and the same hair arrangement is shown as on figures 14 and 15. The mouth is only a depression without lips. The whole face is unusually round. From lot 18, Gull River Range, Bexley township.

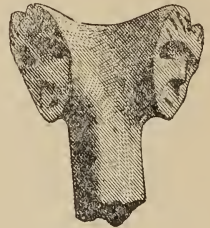
Fig. 19— $\frac{1}{2}$ dia.

Here again, the effort was simply to make a face which is really a much better one than the cut shows. Eyeballs are produced with some success, but lips and chin are failures as usual. There is, however, a slight depression between the nose and the brow.

Fig. 20— $\frac{1}{2}$ dia.

On the two faced pipe-bowl shown by figure 20 the faces are coarsely of the Greek type, and marked by deeply set eyes which here, as in many other specimens, are only depressions, and the same may be said of the mouths. No nostrils are indicated. There is evidently no attempt at portraiture any more than in the other cases, the only intention having been to make a face. Lot 9, con. 3, Bexley township.

Uncommon as two faced pipes are, those having three are rarer still, and the style of art on this specimen is quite distinct from what we find on most other pipes of any kind. Three slight depressions in each case with a little elevation for the nose are all that go to form the faces, except the hollows for eyes and mouths. From lot 5, concession 5, Bexley township.

Fig. 22— $\frac{1}{2}$ dia.

The fragmentary pipe-bowl illustrated by figure 22

Fig. 22— $\frac{1}{2}$ dia.

is given both on account of the simple human face designs it bears, and because it is the only specimen we have of a four-faced object of this kind. The faces are almost perfectly flat, except the T-shaped ridge that forms nose and forehead, the eyes and nose being simply depressions.

Whether a pipe of this kind suggested what we call the Huron pipe, (having a square mouth, with a deep hollow at each angle) or the Huron pipe suggested this, is not easy to decide—perhaps it was neither way. The point to be considered here is the simplicity of the design representing the face. From lot 5, concession 5, Bexley township.

In imitating the human body the Indians were less successful whether the attempts were made by them in stone or in clay. Of any other substance there is little evidence that use was made in carving. Had bone been employed to any extent numerous specimens would have been found by this time. Rude patterns were often worked on bone combs, awl-handles, and the like, chiefly by means of straight lines and holes. Of such there are several examples in the museum, but we have only one specimen in this material, of the human figure probably the work of the Neutrals, as it was found on the farm of Mr. James Rae in the township of Beverly, Wentworth county. If such carvings were ever produced in wood we could hardly expect any traces of them to appear in our day, but it is not at all likely that we have lost much, or anything of this kind.

In clay-pipes a favorite design was that of a crouched or doubled-up human figure, in which the knees and elbows were brought together, the arms being represented in low relief extending to the face, which we always find with a long muzzle-like nose and mouth, and the head terminating in a blunt cone. Modifications of this occur, but they are rare, and never show any degree of advancement in the treatment of the body and limbs, although the head and face may be greatly superior. Only on one clay pipe has an attempt

been made to show fingers, of which there are but three to each hand, and anything like even a distant imitation of feet is very unusual.

As with the child, the head is everything in primitive art, and as with the child, there is no attempt at portraiture.

Even among Mexican specimens, and they are numerous, it is not claimed that any of the big-nosed carvings in stone, or modelings in clay were ever intended to look like any body in particular so far as features are concerned.

TWO STONE PIPES.



Fig. 23— $\frac{1}{2}$ dia.

seems to have been left unfinished. A small hole about one-fourth of an inch deep has been bored in the middle of the lower end as if to unite with another from one of the edges, but the latter has not been made.

It is from Bexley Township, and forms part of the Laidlaw collection.



Fig. 24— $\frac{1}{2}$ dia.

The crouched or seated position was the one usually chosen when the human figure was used as a pattern in pipe-making, no doubt partly because of its compressedness, and partly because the bowl could be more easily shaped from the rounded shoulders. Figure 24 is of mottled soapstone. The face and head could scarcely be more rudely formed, and it would be nearly as true to say the same of the limbs, the position of which vary but little from that of the stereotyped clay-pipe pattern. In this case, however, the arms rest across the knees, and the material has been cut to separate the lower part of the legs from the body of the stone. Fingers and toes there are none. Bexley Township, Laidlaw collection.

POTTERY.

The fragmentary pot of which fig. 25 is a cut, was found by Mr. T. M. Robinson, of Gravenhurst, under a rocky cliff, near Severn Portage, on Muskoka Bay. Originally of graceful form, it is now chiefly valuable as an example of the method employed by the Indians in repairing fractures, or rather of the way in which a clay vessel was held together after being

fractured—one or more holes having been bored on each side of the crack by means of which to bind the parts with a thong.

To our northern and nomadic Indians clay vessels must always have been highly valuable utensils, perhaps more so than any other article they used. It required special skill to produce them—the proper kind of material was not always at hand—much time was necessary to shape one—many of them must have been ruined during the burning process, and at all times they were liable to breakage.

This vessel measures seven and a-half inches across the mouth and was probably about the same depth.

Mr. Robinson found nearly all the pieces, but some of them have since disappeared.

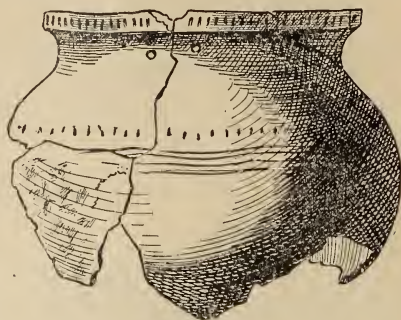


Fig. 25.

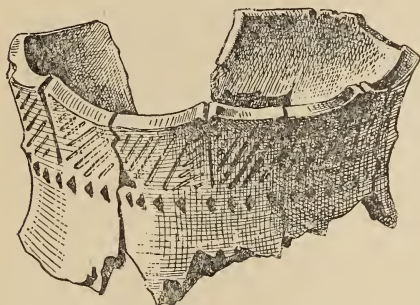


Fig. 26 (21759)— $\frac{1}{3}$ dia.

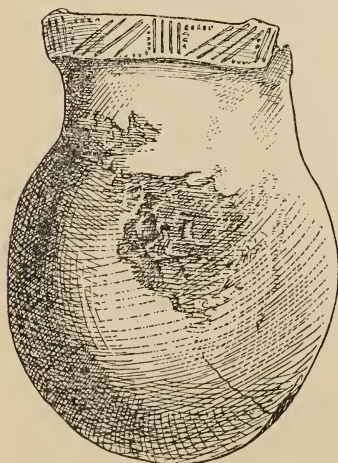


Fig. 27 (21883) $\frac{1}{4}$ dia.

The imperfect pot-rim illustrated by fig. 26 is peculiar in being marked by a series of irregular scallops, very carefully made, and showing considerable taste. The other markings are such as we find on numerous pottery fragments.

For this interesting specimen we are indebted to Mr. Neil Sinclair, who found it on lot 25, concession 2, Fenelon Township.

The pot here figured was found in a "Mountain" face crevice on lot 10, con. 5, Clinton township, Lincoln county, by Mr. Emmerson Grobb, and was presented to the Museum by Mr. T. W. Moyer, of Campden. Although not in perfect condition it is sufficiently so to show its complete form. A portion of the edge on the farther side is broken to a depth of three inches. Long exposure to the weather has rendered it somewhat fragile, and the drip from overhanging rocks has left a slight deposit of lime on portions of the surface both inside and outside. It has ornamental markings round the lip and on the outside only. The situation in which this vessel was found would connect it with the Attiwandarons, or Neutrals, a people but poorly represented in the museum by this class of work.

An imperfect specimen of very large size is in possession of Mr. D. H. Price, an enthusiastic collector ; and some years ago, a company of campers found several specimens in a mound on the lake Erie shore, in the township of Wainfleet, but these were retained by the finders who were from the United States. Figure 27 represents our best specimen of Neutral pottery.

BONE.

Fig. 28 (21728) $\frac{1}{2}$ dia.

This very beautifully formed and finished awl or needle was found on lot 44, Eldon township by Mr. Laidlaw.

On the side shown a keel or midrib extends from the end of the handle until it merges into the roundness of the other end within an inch of the point. The opposite side is almost flat, there being but a slight elevation along the handle part, on each side of which ridge is a row of markings similar to those seen on the engraving.

The specimen has the worn appearance of long usage, and is as smooth and bright as if it had been in use the day before it was found.

Barbed bone fish-hooks are not at all common, and bone fish-hooks, or any kind of hooks are anything but plentiful in Ontario. Besides the one here figured we have but another, and from the same locality. The hook represented by figure 29 was found by Mr. G. E. Laidlaw, or one of his assistants on a village site in Eldon township, Victoria county. Whether barbed specimens of this kind are indicative of Eskimo influence may be discussed. From the same neighborhood we have a small walrus tusk, and we are warranted therefore in inferring some direct or indirect connection as having existed between the Eskimo and people living as far south as Victoria county.

Fig. 29 (21529) $\frac{1}{2}$ dia.Fig. 30 (21652) $\frac{1}{2}$ dia.

This bone bead supplies us with an interesting suggestion. It was found on lot 22, con. 8, Eldon township, by Mr. G. E. Laidlaw, and is marked by very distinct pink bands the widest of which is about one eighth of an inch across. Those at each end correspond with the form of the bone being nearly at right angles to the axis of the bead, but the others are at an angle, presenting thus the appearance of what would result from the winding of a narrow band round the piece of bone leaving spaces between the coils, and then dipping the object into a dye. Among the large number of such bone beads that have been found in this Province no other that I know of has been met with, so marked, or even affording any hint of coloration, and yet when we remember the native love of color we are at once ready to admit what we might readily have suspected, namely, that all bone beads were probably decorated in some such way. Bone easily takes color, and a necklace stained with rich juices of flowers, berries, barks and roots, in various patterns must have proved much more attractive than one of the unadorned material.

That this is the only bead to come under our notice showing evidence of such coloring is probably owing to the fact that bone, when buried, parts with markings of this kind by soil-absorption with comparative freedom, or, that at any rate it does so long before the material itself shows any signs of decay. In the present case there must have been something in the nature of the earth that lent itself to the preservation of the color.

The foot-bone, of which two views are here shown, differs from any of the other somewhat numerous specimens of this class in the museum, on account of the holes, eight of which are bored round the edge of the wide end. Through the smaller end an oval hole has been cut, as in the lesser engraving, but this is not unusual in such bones.

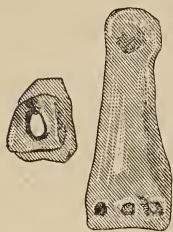


Fig. 31. $\frac{1}{2}$ dia.

Objects made from this kind of bone seem to have had various uses. Some were perhaps used for gambling purposes, like dice, and some for leg or knee bangles, but this one strongly resembles the bones still used in an Ojibwa game, the name of which was given to me, improperly I think, as *Pe-kunj-gun-e-gun*, or "stabbing at a bone." A complete set of these with string and pointer, was given to us several years ago by Mr. J. E. Wood on the Mississauga Reserve near Hagersville. It is described and figured in a former report.

One of the bones in this set is perforated similarly. The chief difference between figure 31 and it is, that the latter like all the rest of the set (seven) has been formed conically by hand so that when hanging on the string one bone enters the other. Found on lot 18, Gull R. Range, Bexley township. Laidlaw collection.

A curiously carved nut, two and three-fourth inches long, found in the east end of Hamilton, was referred to in last report, p. 29, as the *Macassa*, for the want of a better name, and because the object was dug up near the shores of Burlington (formerly *Macassa*) Bay.

Respecting this specimen it was said, "Reference to the find is made here mainly in the hope that some reader may be able to throw light on the subject, through any knowledge he possesses of similar objects in Europe." Somewhat strangely a piece of similar work has lately come into our hands through Mrs. L. De Blaquiere of this city, who states that her specimen came from Malta. The kind of substance used is not yet known, although it is probably a nut.

CORRECTION.

In Mrs. Holden's translation of Mr. Benjamin Sulte's article on the War of the Iroquis in last year's report, page 127, in the sentence, "The Jesuit Relation of 1660, written by Etienne Brulé, furnishes a good account of this anti-fraternal warfare." The words "written by Etienne Brulé" should be omitted.

THE FLINT WORKERS : A FORGOTTEN PEOPLE.

By the VERY REV. WM. R. HARRIS, Dean of St. Catharines.

On the farm of a man named Chester Henderson, close to what is known as the Talbot road, and about seven miles inland from Port Stanley, on the north shore of Lake Erie, a little over 100 miles west of Toronto, there is a circular rim of earth enclosing about two and a half acres of land. On the 29th of last September, accompanied by Mr. James H. Coyne, who has written a valuable monograph on the early tribes of this section of the country, I visited this historic embankment and secured photographs, which, unfortunately, give but a feeble idea of its height and extent. Within the fort and north of it the trees are still standing, but it is only a few years since the primeval forest shrouded it from profanation. Rooted on the raised earth are venerable chronological witnesses of its great age. On the stump of a maple we counted 240 rings, and on that of an elm, which measured four feet in diameter, were 266. The average height of the bank was three feet, and allowing for the subsidence of the soil, it was probably at one time four feet high. A small stream runs along this elliptical enclosure, which for about half its course has cut for itself before leaving the fort a bed about seven feet below the general level. To the south, where this stream trickles through an opening, there is a rude and desolate gap, and indications of what was once a gateway. The walls terminating at this entrance are squarely shouldered and show a deftness and skill of no mean order on the part of the builders.

These embankments are familiarly known as the "Southwold Earth-works," and are probably the best ruins of an Indian palisaded village to be found in Western Canada. The plan of the fort is purely aboriginal, and the labor involved and patience required in its construction must with their primitive tools have been very great.

A plaster model of the fort is now in the Archæological Museum of Ontario, in Toronto. In the ash-heaps and kitchen-middens in its immediate neighborhood there was not found anything that would give the slightest hint of European presence. Flint spear and arrow heads, stone casse-tetes (or skull crackers), fragments of pottery, clippings of flint, rubbing stones, pipes of steatite, and clay and mealing stones, have from time to time been dug up, but no article bearing a trace of copper or iron was found.

More than 250 years have passed away since the fort was constructed, and the hardy settlers of the region still look with wonder and curiosity upon the relic of a vanished people, whose origin is to them as much a mystery as the law of gravitation. Indeed, the little that the students of ethnology and archæology know of this peninsular tribe is gathered from the writings of the early missionaries, and collected from the embankments, mounds, ossuaries, separate graves and village sites. From the tools and weapons of bone, and instruments of horn and stone, we are left to draw our own conclusions, and reduced to the necessity of surmising and guessing. The prehistoric Neutrals are in the age of the world but of yesterday, yet it is easier to present the lover of technological lore with illustrations of the arts and industries of

Egypt and Assyria, than to illustrate from actual specimens of household utensils, working tools and ceremonial implements, the social and domestic state of this North-American tribe. If Sanson's map be accurate, within these earthwalls was the neutral village of Alexis, visited by the heroic Brebeuf and the saintly Chaumonot in the winter of 1640-41.

But let us reconstruct the village, and people it as it was when the devoted priests entered the gateway already mentioned. When the chief men of the 80 or 90 families composing a Neutral village selected this site to be their abiding place for 12 or 15 years, they examined with characteristic sagacity its savage surroundings. Its seclusion in the gloomy forests, the fertility of the land, the gurgling brook winding through and around the giant elms; the abundance and variety of berries, and the succulent beech-nuts that fell in showers every autumn, promised them years of indolent repose. They are satisfied with their selection and begin at once their new village. The ditch around the town is dug with primitive wooden spades, the earth carried or thrown up on the inside, trees are felled by burning and chopping with stone axes, and split in to palisades or pickets. These are now planted on the embankment in triple rows, that are lashed together with pliable twigs and strips of elm bark. Sheets of bark are fastened on the inside to the height of six or seven feet, and a timber gallery or running platform constructed, from which heavy stones may be cast or boiling water poured upon the heads of the attacking Iroquois or formidable Mascoutin. Notwithstanding the enormous labor expended upon its construction, this fortified embankment scarcely deserves the name of a fort, but it is at least as strong and well built as those of the enemy. Within the enclosure cluster the lodges of the tribe, formed of thick sheets of bark fastened to upright poles and cross-beams, covered with bark and skins. Many of the lodges house from eight to ten families. The fires are on the ground on a line drawn through the centre, with openings in the roof, which serve for chimneys and windows. Here grizzly warriors, shriveled squaws, young boys aspiring to become braves, and girls ripening into maturity, noisy children, and dogs that never bark, mingle indiscriminately.

There is no modesty to be shocked, no decency to be insulted, no refinement of feeling to be wounded; for modesty, decency and refinement of feelings were dead ages before the tribe began its western wanderings. In these ancient wilds clearings were made, branches hacked off from the wind-felled trees, piled around the standing timber and set on fire, or the trees girdled, through whose leafless branches the sun ripens the Indian corn, beans, tobacco and sunflowers, planted in the spring by the squaws, and whose seeds were probably obtained in the remote past from Southern tribes. The people who inhabit this village are Attiwandarons, or members of the great Neutral nation, whose tribal grounds stretched from the Genesee River to the Detroit. But before entering upon an epitomized history of this populous and formidable nation, one of whose fortified towns we have just resurrected, it will be expedient rapidly to outline the territorial and tribal divisions east of the Mississippi, when, in 1613, Champlain entered the St.

Lawrence and began the ascent of the Ottawa. All the nations whose tribal lands drained into the valley of the St. Lawrence River were branches of two great families; the roving Algonkin, the Bedouins of the mighty wilderness, who lived by fishing and hunting; and the Huron-Iroquois, hunters and tillers of the soil, whose warriors were the boldest and fiercest of North America. The Algonkins were divided and sub-divided into families and tribes. The Gaspians, Micmacs and the Papinachois or Laughers roamed the forest on both sides of the Great River, as far as Tadousac and Cacouna. Along the banks of the gloomy Saguenay, and into the height of land forming the watershed towards Lake Nimiska, the Mistassini, the Montagnais, the Tarcapines and Whitefish hunted in that desolation of wilderness and fished in its solitary lakes and streams. Ascending the Ottawa River to the Allumette Islands, tribes of lesser note paid tribute to the One Eyed nation, called by the French, "Du Borgne," from the fact that for three generations their war chiefs had but one eye. They held the Ottawa and exacted tribute from other tribes passing up or down the river. On the borders of Lake Nipissing dwelt the Nipissings or Sorcerers, while to the north and northwest were the hunting grounds of the Abittibis and Temiscamingues, after whom Lake Temiscamingue is named.

North of Lake Huron, running from the mouth of the French River and circling round the coast to Sault Ste. Marie, roved five or six hordes of Algonkins. The writings of Brother Gabriel Sagard, the map of Champlain, 1632, that of Ducreux, 1660, the Jesuit Relations, and the memoirs of Nicholas Perrot certify to the hunting and fishing grounds of these Algonkin Bedouins. The Bruce peninsula and the great Manitoulin, "The Island of Ghosts" were the home of the Ottawas, or Large Ears, called by the French, Cheveux-Relèves (Raised Hair) from the peculiar manner in which they wore their hair. Further west were the Amicoues or Beavers, the Santeurs or Ojibwas, including the Mississaugas and Saugeens. The roving hordes that stretched from the head waters of Lake Superior to the Hudson Bay, the Wild Oats, Puants and Pottawatomes, the Mascoutin, or Nation of Fire, the Miamis, the Illinois, were all branches of one Algonkin tree. The great Huron-Iroquois family included the Tionnontates or Petuns, the Hurons or the Wyandots, Andastes of the Susquehanna, the Tuscaroras of North Carolina, the Five Iroquois nations, the Eries, and the Attiwandarons or Neutrals. The tribes of this family were scattered over an irregular area of inland territory, stretching from Western Canada to North Carolina. The northern members roved the forests about the Great Lakes, while the southern tribes lived in the fertile valleys watered by the rivers flowing from the Alleghany Mountains.

A problem of ethnology, which will perhaps never be solved, confronts us in the study of the aboriginal people of this section of our country. What were the causes that led to the migration and settlement of the tribes in Western New York and Southwestern Ontario? At what time did the Iroquois separate from the Hurons, and the Attiwandaron or Neutrals claim independent sovereignty? When did the exodus of the Neutrals occur, and what was the route followed by this adventurous clan?

Mr. David Boyle, the Canadian archaeologist, in his "Notes on Primitive Man," suggests that the Neutrals were among the first to leave the main body. "Regarding their movement," he continues, "there is not even a tradition, but their situation beyond the most westerly of the Iroquois, and the fact that they had no share in the Huron-Iroquois feuds, point to an earlier and wholly independent migration. It is known also that their language varied but slightly from that of the Hurons, which there is reason to regard as the parent tongue, and the inference is that their separation must have taken place from the Wyandot side of the mountain down by the sea long before the great disruption compelled the older clans to seek a refuge on the Georgian Bay."

Dr. Hale, in his "Book of Iroquois Rites," expresses the opinion that, centuries before the discovery of Canada, the ancestors of the Huron-Iroquois family dwelt near the mouth of the St. Lawrence. As their numbers increased dissensions arose. The hive swarmed and band after band moved off to the west and south. Following the south shore of Lake Ontario, after ascending the St. Lawrence, the main bodies of the migrants afterwards known as the Hurons or Wyandots, reached the Niagara peninsula. Remaining here for a period, they eventually rounded the western end of the lake and in the course of time took permanent possession of the country lying to the south of the Georgian Bay. After a while they were joined by the Tionnontates, who followed the Ottawa route. This, however, is but tradition, and in it there is nothing to account for the migration and settlement of the Neutrals along the north shore of Lake Erie, and eastward till they reached the country of the Iroquois. The first authentic mention of this powerful nation, we find in Champlain's writings, where he tells us that in 1616, when he visited the Georgian Bay region, they were then in friendly alliance with the Ottawas and Andastes, and were waging war on the Nation of Fire, whose tribal lands extended through Michigan, as far east as Detroit. When Champlain was on a visit to the Ottawas, he expressed a wish to see the Neutrals, but it was intimated to him that his life would be in danger, and he had better not undertake the journey. In 1626, Father Dailion, a member of the Franciscan Order, was evangelizing the tribes of the Huron Peninsula, when he received a letter from Father LeCaron, the Superior, instructing him to visit the great Neutral tribe or Attiwandarons, and to preach to them the saving truths of Christianity. Joseph de la Roche Dailion was a man of extraordinary force of character, "as distinguished," wrote Champlain, "for his noble birth and talents, as he was remarkable for his humility and piety, who abandoned the honor and glory of the world for the humiliation and poverty of a religious life."

Of the aristocratic house of the Du Ludes, society tendered him a courteous welcome, the army and the professions were opened to him, wealth, with its corresponding advantages, too, were his, when he startled his friends, shocked society and grieved his family by declaring his intention of becoming a member of the Order of St. Francis, a religious association of barefooted beggars. The ranks of the secular clergy offered him the probabilities of a

mitre, and the hope of a Cardinal's hat. His family's wealth and position in the State, his father's influence at court, his own talents and the prestige of of an aristocratic name, all bespoke for him promotion in the Church.

His friends in vain pleaded with him to associate himself with the secular priesthood, and when they learned that he was not only inflexible in his resolution to join the Franciscans, but had asked to be sent into the wilderness of Canada, they thought him beside himself. He left France in the full flush of his ripening manhood, and for the love of perishing souls, entered upon the thorny path that in all probability would lead to a martyr's grave.

On the 19th June, 1625, he reached Quebec, and in the following spring accompanied by Fathers Brebeuf and De la Noue, he left Quebec with the flotilla, whose canoes were headed for the Huron hunting grounds in northern forests. When he received LeCaron's letter, he was at Carragouha, on the western coast of the Huron peninsula, where he opened the mission of St. Gabriel. In obedience to the request of his superior, accompanied by two French traders, Grenalle and LeVallee, he left Huronia, October 18, 1626, and on the noon of the sixth day entered a village of the Neutrals. "All were astonished," he writes, "to see me dressed as I was and to learn that I desired nothing of theirs, but only invited them by signs to lift their eyes to Heaven, make the sign of the cross and receive the faith of Jesus Christ." Meeting with a hospitable welcome he advised Grenalle and LeVallee to return to Huronia, and after escorting them some distance on their way, he retraced his steps to the Indian town.

Gilmory Shea, in an article which he wrote for the "Narrative and Critical History of America," is of the opinion that he crossed the Niagara River, and visited the villages on its eastern side. Daillon states in his valuable letter that a deputation of ten men of the eastern branch of the Neutrals, known as Ongiaharas, or Kaw-Khas, waited upon him bearing a request to visit their village, Onaroronon, a day's march or about thirty miles from the land of the Iroquois, and that he promised to do so when spring opened. Notwithstanding the deservedly great authority of Gilmory Shea, I am of the opinion that Daillon never crossed the Niagara River. Aside from this promise, which he was not in a position to fulfil, there is no hint in his letter to lead us to believe that he visited the eastern villages. The priest spoke to the Neutrals of the advantages of trading with the French, and suggested that he himself would accompany them if a guide could be furnished to the trading-post on the river of the Iroquois. Differing from the majority who have touched on this subject I am satisfied that the place of trade was on Lake St. Peter, fifty miles below Montreal. It was called Cape Victory or Cape Massacre, in memory of the hundred Iroquois, who in 1610 were killed by Champlain and his Algonkin allies. On the Island of St. Ignace, directly opposite the mouth of the Richelieu, was the "Place of Trade," referred to by Sagard in 1636. Champlain says that the Iroquois held possession of the St. Lawrence and closed it against other tribes, and it was for this reason that the Hurons always went by the Ottawa, when leaving on their trading excursions with the French. The Hurons hearing that Daillon was

likely to prevail upon the Neutrals to deal directly with the French, and fearing they would lose the profits that accrued to them, by exchanging French goods at high rates for the valuable furs of the Neutrals, became seriously alarmed. They hastily despatched runners into the Neutral country, whose extraordinary reports almost paralyzed the people with fear. The Neutrals with horror learned that the priest was a great sorcerer, that by his incantation the very air in Huronia was poisoned; and that the people withered away and rotted into their graves; and that if they allowed him to remain among them, their villages would fall to ruin and their children sicken and die.

The Neutrals took alarm, treated the priest with withering contempt refused to listen to him, and intimated that unless he left the country, they would be compelled for their own safety to kill him. The priest deemed it prudent to return to Tonchain, in Huronia, from which place on the 18th of July, 1627, he dates his most interesting letter. In his report of the mission, he speaks of the climate with appreciation, notes the incredible number of deer, moose, beaver, wild cats and squirrels that filled the forest; "the rivers," he adds, "furnish excellent fish and the earth gives more grain than is needed. They have squashes, beans and other vegetables in abundance and very good oil. Their real business is hunting and war. Their life, like that of the Hurons, is very impure, and their manners and customs quite the same."

The priest was probably the first white man who ever entered the Niagara Peninsula, for the traders and *couriers-de-bois* had not yet ascended the Ottawa River. Etienne Brulé, the dauntless woodsman and interpreter to Champlain, when he left Huronia with twelve Wyandots on an embassy to the allied Eries crossed Lake Ontario to the east of the Senecas, but there is no record to show that he ever entered the Neutral country. Fourteen years after Dailon's return, the Jesuit Fathers of the Georgian Bay region, who had established permanent missions among the Hurons, began to cast wistful glances on the neighboring nations, and to open missions among the Petuns or Tobacco Indians, the Ottawas and the Nipissings. Fathers Brebeuf and Chaumonot were selected for the mission to the Neutrals.

Jean de Brebeuf was the descendant of a noble French family, who abandoned the honors and pleasures of the world for the hardships and perils of missionary life. He arrived at Quebec in 1625, passed the autumn and winter with a roving band of Montagnais Indians, enduring for five months the hardships of their wandering life, and all the penalties of filth, vermin and smoke, abominations inseparable from a savage camp.

In July, 1626, he embarked with a band of swarthy companions, who were returning from Quebec to Georgian Bay, after bartering to advantage canoe loads of furs and peltries. Brebeuf was a man of splendid physique, of broad frame and commanding mien, and endowed with a giant's strength and a tireless endurance. Bravery was hereditary in his family, and it is said that he never knew what the sensation of fear was. He was a man of extraordinary piety, kindly sympathies and an asceticism of character that to the "natural man," mentioned by St. Paul, is a foolishness beyond his understanding. He wrote a treatise on the Huron language, which was published

in Champlain's edition of 1632, and republished in the "Transactions of the American Antiquarian Society," as a most precious contribution to learning.

His companion, Joseph Marie Chaumonot, or as he is styled in the archives of his order, Josephus Maria Calmonotius, was his very antithesis. He was born on March 9, 1611, and in the fall of 1639 reached the Huron country. He was timid even to fear, his nature was impressionable, and while in his studies he scored one success in literature, he failed as a theologian. "*Profectus in litteris et theol. parvus*" is written after his name in the archives of his order. He was credulous almost to superstition, shrank from his surroundings, as from the approach of a dangerous reptile; yet under the mysterious influence of Divine Grace, and by an indomitable and unsuspected force of will he conquered human infirmity, and became one of the most conspicuous figures and admirable characters of the early church in Canada. He had a prodigious memory and thoroughly mastered every dialectical and idiomatic alternation of the Huron language and its linguistic affinities. He drew up a grammar and dictionary which continued for years to be an authority, not only for the Huron language, but for all the kindred Iroquois tongues.

His grammar was published twenty-five years ago in the "Collections of the Quebec Literary and Historical Society," and is one of the most important of the linguistic treasures which American ethnology owes to the early missionaries. On November 2, 1640, the two priests left the Huron village of St. Joseph to bear the message of the gospel anew to the great nation of the Attiwandaron. The task they had set themselves was one fraught with serious difficulties, for the path lay through a country reposing in the desolation of solitude, and its end might be a grave. Winding through the primeval forest, the trail crossed streams, through which they waded kneedeep. Wind-swept and uprooted trees lay everywhere around them, and when night with its eternal silence shrouded the forest they sought a few hours of rest under the shadow of some friendly pine.

After a journey of five days the travellers on the 7th of November entered the Neutral village Kandoucho. To this bourg they gave the name of All Saints, placed the whole country under the protection of the angels, and referred to it afterwards as the Mission of the Holy Angels. To their surprise they learned that an evil reputation had already preceded them, and no hospitable welcome awaited them. The Hurons, fearing their influence would divert the trade and custom of the Neutrals from themselves to the French, resolved that at all hazards this great misfortune must be averted.

Messengers bearing gifts of hatchets and wampum belts went from village to village proclaiming that they were commissioned by their cousins and kinsmen of Huronia to inform the Neutrals that if they allowed the pale-faced sorcerers to dwell among them famine and plague would desolate their villages, their women would be struck with sterility, and the nation itself fade from off the face of the earth.

Brebeuf, who was known by his Indian name of "Echon," was looked upon with horror, as a dangerous sorcerer, whose incantations were dreadful in their effects. A thousand nameless fears took possession of them, they

avoided the men of God as they would poisonous reptiles, and retired from their approach as from that of a ravenous beast. Their very footsteps were shunned, the paths upon which they walked were infected, and streams from which they drank were poisoned. No one dared to touch a single object belonging to them, and the gifts which they offered were rejected with horror. In fact the spectres of fear and consternation were everywhere, and in the presence of this universal terror, the chiefs summoned a council to determine the fate of the priests. Three times the fathers were doomed to death, and three times the uplifted tomahawk was lowered by the force of arguments advanced by some of the elders. The missionaries visited 18 towns, crossed the Niagara River near Black Rock Ferry, and went as far as Onguiara, a village on the eastern limits of the Neutral possessions. In the 40 towns of the nation, they estimated a population of 12,000, but claimed that three years before their visit, there were 25,000 souls in the country. This extraordinary reduction in their numbers was occasioned by repeated wars, but principally by a pestilence which had ravaged the country. Along the winding paths through the forest, that interlaced and crossed and crossed again, the Fathers went from town to town, suffering from cold and hunger, and bearing a charmed life. But the black-robed sorcerers with their instruments of necromancy, their crucifixes, crosses and rosary; their ink horns and strange hieroglyphics, the complete outfit of the black art, were held in horror and detestation.

Despairing of accomplishing any good for the tribe, or of overcoming their inveterate prejudices, the Fathers resolved to bid them goodbye, and retrace the path to the Huron villages. In the second week of February, 1641, they began their homeward journey. They crossed the Niagara River at Lewiston, and reaching its western banks, disappeared in the shrouding forest. On their return journey they were snowbound at a town which they christened St. William, when outward bound. Here Chaumonot traced his rough map of the Neutral country, and Brebeuf added to the Huron dictionary, many idiomatic words of the Neutral language.

On the 19th of March, 1641, the feast of St. Joseph, patron of the Huron missions, Brebeuf and Chaumonot, after an absence of almost five months, reached the village of St. Mary on the Wye. Among the 18 villages visited only one, that of Khioetoa, called by the Fathers St. Michael, extended to them a partially friendly greeting. Chaumonot, at the request of Father Lalemant, now wrote his report of their visit to the Neutrals, which is to be found in the Relations of the Jesuits, 1641. This remarkable and interesting letter practically furnishes all the information bearing on this mysterious tribe.

As the Neutrals were of the parent stock of the Huron-Iroquois, their government, criminal code, marriages and religious conceptions were alike. Their dances and feasts, methods of carrying on war, their treatment of prisoners, cultivation of the soil, the division of labor between men and women, their love for gambling and manner of trapping and hunting, were also similar to those of the Iroquois and Hurons, with which we are all so

familiar. The missionaries draw particular attention to their treatment of the dead which they kept in their lodges, till the odor of decaying flesh became insupportable.

They then removed them to elevated scaffolds, and after the flesh had been devoured by carrion birds or rotted away, they piously collected the bones and retained them in their houses, till the great communal feast of the dead, or tribal burial.

"Their reason," writes Father Chaumonot, "for preserving the bones in cabins, is to continually remind them of the dead, at least they so state." This tribe carried to an insane excess, the Indian idea, that madness was the result of some superhuman or mysterious power, acting on the individual, and that any interference with the freedom or license of a fool would be visited with the wrath of his guardian spirit or *oki*. Pretended maniacs were found in every village, who, anxious to acquire the mystic virtue attributed to madness, abandoned themselves to idiotic folly. "On one occasion," writes the Father, "three pretended maniacs, as naked as one's hand, entered the lodge where we were, and after performing a series of foolish antics, disappeared. On another occasion some of them rushed in, and seating themselves beside us, began to examine our bags, and after having taken away some of our property they retired, still conducting themselves as fools." In summer the men went stark naked, figures tatooed with burnt charcoal on their bodies from head to foot, serving for the conventional civilized garments. The genealogy of the British nobleman is shown in "Burke's Peerage," but the Neutral warrior improved on this, by tracing his descent in fixed pigments on his naked body.

It is hardly necessary in this paper to state why the Neutrals were so called by the French, but it will be interesting to inquire, how for ages they were able to hold aloof from the interminable wars that from remote times were waged between the Hurons and Iroquois? There is no other instance in aboriginal history where a tribe occupying middle or neutral lands was not sooner or later compelled to take sides with one or the other of the nations lying on its opposite frontiers, if these nations were engaged in never-ending strife. There is but one solution of this problem, and that is to be found in the immense quantities of flint along the east end of Lake Erie. Without flint arrow and spear heads the Iroquois could not cope with the Hurons, nor the Hurons with the Iroquois; and as the Neutrals controlled the chert beds, neither nation could afford to make the Neutrals its enemy. The Neutral tribe had easy access to an unlimited supply of material for spear arrow heads and scalping knives. Extensive beds of flakings and immense quantities of flint were found along the Erie shore, near Point Abino, where the chert-bearing rock is almost abundant. Even to-day, after the beds have been worked for centuries, many of the nodules picked up are large enough to furnish material for 20 or 30 spear heads or arrow tips. For miles along the beach heaps of flakes may be seen, and flint relics are found in all parts of Ontario and Central and Western New York, corresponding in appearance with the Lake Erie material.

The Iroquois were too shrewd and the Hurons too far seeing to make an enemy of a people who manufactured the material of war, and controlled the source of supply. To those who take a deep interest in all that concerns primitive life in America, the excellence of the workmanship manifested in the flint instruments found on the Niagara Peninsula and in the neighborhood of Chatham and Amherstburg, must convince them that the Neutral excelled all other tribes in splitting, polishing and fitting flakes of chert-bearing rock.

Independent of its general value as an ethnological factor on the study of the Indian progress to civilization, it is also a conclusive proof that among savage peoples, that which they possess, and is eagerly sought after by others, is cultivated or manufactured with considerable skill. Primitive methods of manipulating raw material, and of handling tools, must ever prove attractive to the student of ethnology, for in these methods we observe the dawn of ideas, which are actualized in their daily lives. The Neutrals when discovered by Father Dailon, in 1626, were like the Britons when conquered by Cæsar, many degrees advanced beyond a low degree of savagery. Chaumonot states, that the Neutrals were physically the finest body of men that he had anywhere seen, but that in cruelty to their prisoners, and in licentiousness, they surpassed any tribe known to the Jesuits. It would appear that as a rule there was a communal understanding among the Indians of North America, that among the prisoners who were taken and tortured to death, women were not to be subjected to the agony of fire. At times this compact was broken by the Iroquois and the Illinois, but the Neutrals were, it would seem the only tribe that habitually violated this understanding, for they subjected their female prisoners to the atrocious torture of fire and with a fiendish delight revelled in their cries of agony. I have already stated on the authority of Chaumonot, that the tribe was given over to licentiousness, and I may add that in point of cruelty and superstition, it was not surpassed by any native American people, of whom we have any record.

Had it been the nature of the Attiwandarons to live a reasonably clean life they might have become the most powerful branch of the great Huron-Iroquois family. Long immunity from attacks from without, the richness and fertility of their soil, and the abundance of vegetable and animal food, permitted them to devote their leisure to the enjoyment of every animal luxury their savage nature could indulge in; and they suffered the consequences that follow from riotious living the world over. Gibbon, in his "Decline and Fall of the Roman Empire," states that the descendents of the all-conquering Romans became wasted by dissipation, and that when the Scandinavian hordes poured from their northern forests into the plains of Italy the effeminate Romans had not the strength to oppose them.

The licentiousness of the Neutrals, their freedom from national and domestic cares destroyed their warlike courage, and to all but their inferiors in number they were regarded as women. They quailed before the face of the Five Nations, and stood in awe of the Hurons, who refused them the right of way to the Ottawa, but as a bloody pastime they carried on cowardly and ferocious wars against the weak western Algonkin tribes. Father Rag-

neneau relates that in the summer of 1643 they threw 2,000 of their warriors into the prairie of the Nation of Fire, and invested one of their fortified towns, which they stormed after a 10 days' seige. The slaughter that followed was appalling. They burned 70 of the enemy at the stake, torturing them the meanwhile with a ferociousness satanic in its prolongation and ingenuity. They tore out the eyes and girdled the mouths of the old men and women over 60 years of age, and scorning their appeal for death, left them to drag out a woeful and pitiable existence. They carried off 800 captives, men, women and children, many of whom were distributed among the Neutral villages, and by a refinement of cruelty surpassing belief, were subjected to atrocious mutilations and frightful burnings, prolonged from sunset to sunrise.

There is a mysterious law of retribution, that in the accuracy of its application, is reduced to a mathematical certainty. The Neutrals, who had filled up the measure of their iniquity, had by their ruthless cruelty and unbridled licentiousness, invoked their doom. From the distant forests of the Senecas, there came a prophetic warning, and its message was, The Iroquois are beginning to open a grave for the great Neutral nation, and the war cry of the Senecas will be the requiem for their dead. After the Mohawks and Senecas, the war-eagles of the wilderness, had scattered and destroyed their enemies, the Hurons, they sought excuses to issue a declaration of war against the Attiwandarons. Father Lafiteau states on the authority of the Jesuit Garnier, that when the Iroquois had destroyed their enemies, and were in danger of losing, from want of practice, their warlike dexterity and skill, Shonnonkeritoin, an Onondaga, proposed to the war chief of the Neutrals, that their young men should meet in occasional combats in order to keep alive among them a warlike spirit. The Neutrals, after repeated refusals, at last with much hesitation reluctantly consented. In a skirmish that took place soon after the agreement, a nephew of the Iroquois chief was captured and burned at the stake. The Onondagas, to avenge his death, attacked the Neutrals, and the Mohawks and Senecas marched to the assistance of their countrymen. Father Bressani says that the friendly reception and hospitality extended to a fugitive band of Hurons, after the ruin and dispersion of that unhappy people, excited the wrath of the Iroquois, who for some time were patiently awaiting a pretext to declare war.

I have somewhere seen it stated that the emphatic refusal of the Neutrals to surrender a Huron girl, who escaped from the Senecas, was the cause of the war; but whatever may have been the reason, it is certain from the Relations of the Jesuits, that in 1650, the war between the Iroquois and the Neutrals began, and was carried on with a ruthlessness and savagery, from the very perusal of which we recoil with horror. In this year the Iroquois attacked a frontier village of the enemy within whose palisaded wall were 1,600 warriors. After a short siege, the attacking party carried the fortified town, and made it a slaughter-house. The ensuing spring they followed up their victory, stormed another town, and after butchering the old men and children, carried off a number of prisoners, among them all the young women, who were portioned out as wives among the Iroquois towns. The Neutral

warriors, in retaliation, captured a frontier village of the enemy, killed and scalped 200, and wreaked their vengeance on 50 captives, whom they burned at the stake.

When the Iroquois heard of the death of their braves, they met to the number of 1,500, crossed the Niagara River, and in rapid succession, entered village after village, tomahawked large numbers of the inhabitants, and returned to their own country, dragging with them troops of prisoners, reserved for adoption or for fire.

This campaign lead to the ruin of the Neutral nation. The inland and remote towns were struck with panic, people mad with the instinct of self-preservation fled from their forests and hunting grounds, preferring the horrors of retreat and exile to the rage and cruelty of their ruthless conquerors. The unfortunate fugitives were devoured with famine, and in scattered bands wandered through the forests, through marshes and along banks of distant streams, in search of anything that would stay the devouring pangs of hunger.

From the mouth of the French River to the junction of the Ottawa, and from the fringe of the Georgian Bay to the Genesee, the land was a vast graveyard, a forest of horror and desolation, over which there hovered the sceptre of death, and on which there brooded the silence of a starless night. In April, 1652, it was reported at Quebec that a remnant of this tribe had joined forces with the Andastes and made an attack upon the Senecas. The Mohawks had rushed to the help of their countrymen, but the issue of the war was unknown. In July, 1653, word was brought to the same city that several Algonkin tribes, with 800 Neutrals and the remnant of the Tobacco Nation, were assembled in council near Mackinac. They are mentioned for the last time as a separate people in the "Journal of the Jesuits," July, 1653. Henceforth the nation loses its tribal identity, and merging into the Hurons is known on the pages of history as the Wyandots. Father Fremin, in a letter embodied in the Jesuit Relations of 1670, states that on the 27th of September, 1669, he visited the village of Gandougaræ,* peopled with the fragments of three nations conquered by the Iroquois. These were members of the Onontiotogas, Neutral and Huron nations. The first two, he adds, scarcely ever saw a white man, and never had the gospel preached to them.

These were the sons of the slaughtered Neutrals, who were adopted by Senecas and incorporated into the tribe to fill the places of those they lost in their ruthless forays. This is the last time that the Neutrals are ever mentioned in the annals of New France.

*Gandougaræ was four miles southeast of Victor Station, in Ontario County, N. Y.

INDIAN VILLAGE SITES IN THE COUNTIES OF OXFORD AND WATERLOO.

By W. J. WINTEMBERG.

During the season just ended I visited some of the village sites mentioned in last year's report, but found nothing worthy of note. Last summer my attention was directed to three other sites, but being otherwise occupied then and winter setting in earlier than I anticipated, I had to forego the pleasure of visiting these places this year, but intend doing so next spring.*

The visits to the old sites, besides being made for the purpose of procuring specimens, were made to verify a theory which I have regarding the comparative ages of some of the villages.

That the Neutrals or Attiwandarons were not the true autochthones of this part of Ontario is evident. Belonging, as they did, to the Huron-Iroquois family of Indians, they must have at some time, perhaps not very long before the advent of the Europeans, left the main body and settled where they were subsequently found by the Jesuit missionaries. Whether their predecessors were an Algonkin people or were related to the builders of the mounds we will never know, but whatever they were, they certainly left behind them many palpable evidences of their existence.

It is my purpose in this paper to show that some of the Oxford village sites were occupied by these pre-Neutral people.

The Neutral villages, Nos. 1, 2, 3, 4 and 8, in Blenheim township, and those in Wilmot (with the exception of the two small isolated camps at Baden lake and on the river bank near New Hamburg), Waterloo and North Dumfries, are invariably located near some spring or small rivulet. The pre-Neutral villages, on the contrary, are without exception found near large streams or small lakes. No. 2 is on the shore of Burgess lake; while the others, Nos. 5 and 6 and those at Baxter's (lot 10, con. 10) and H. Davison's (lot 9, con. 11) are on the banks of, or near the River Nith. Hart's in East Oxford is near what was formerly a small lake.

In making this assertion I mean that the morass near Mr. Hart's place, which still shakes when you walk across it (owing to the water beneath), was at some remote period an open lake. Successive growths of sphagnum in course of time covered the face of the lake with a thick sheet of vegetable matter which became thicker and sank lower and lower beneath the weight of the accumulated mould of generations upon generations of dead plants until it was metamorphosed into the quaking bog or morass. This would have been the inevitable fate of Burgess lake and of many other small lakes that dot the country if the process of occlusion, or the invasion of vegetable

* Since this was written I received a letter from Mr. Rathbun stating that one of these sites, which is near the River Nith and not far from his place, yielded "Indian skeletons, animal bones, bone awls, pottery, chisels, arrow points, clam shells, pipes, etc." showing that this is a recent or Neutral site. A gouge was also found here a few years ago.

matter had not been arrested by draining ; but in many of them the encroachment of the sphagnous growth may still be observed. For further information consult Prof. N. S. Shaler's paper on the fresh water morasses of the United States, in the 10th annual report of the U. S. Geological Survey, pp. 285-287.

In the fire-places of the Neutral sites large quantities of ashes are found, while in those of the pre-Neutral class there is not the slightest trace of ashes : the spots, however, owe their dark color to igneous action. Another peculiarity in connection with the pre-Neutral sites is the entire absence of relics from the fire-places, but which are invariably found in the unblackened soil surrounding them.

The difference between the pottery found on these Neutral and pre-Neutral sites is also marked. In the last report I noted some of the differences existing between pottery fragments found on two Blenheim sites, namely, Nos. 1 and 2, and it will be unnecessary for me to say anything further regarding the ceramic productions of these two villages. The pottery sherds found on the other recent or Neutral sites bear the same patterns as those found at No. 1. Village site No. 5, which I believe is of the same or, perhaps, even of an earlier age than No. 2, yields pottery fragments which show that the vessels were formed in some coarsely-woven textile mould. Some fragments show the impression of cords, which in one specimen I found are quite plain, even the imprint made by the thin fibres of the twisted cord being visible, but most of the impressions are effaced. Fragments of clay vessels apparently made in this manner were found by Messrs. George and Everett Brown on the bank of the River Nith (lot 20, con. 3, block A, Wilmot tp.). Village site No. 6 produced sherds of very coarse material, with exterior decorations resembling that on specimens from Burgess lake. A combination of circular indentures and incised lines is the characteristic pattern on the fragments from East Oxford. Now, if the character of the pottery found on these sites be taken as a criterion of age, it proves that all the villages were not occupied contemporaneously ; those which I believe to be pre-Neutral being inhabited, and possibly even deserted, centuries before the others.

None of the pre-Neutral sites have produced bone relics and clay or stone pipes. The conditions were not favorable for the preservation of the former, which accounts for their absence ; but how shall we account for the absence of the pipes ? I have always believed that the use of tobacco was universal in this part of North America, but this fact seems to prove the contrary. They could not have disappeared or disintegrated, for the pipes were usually better burnt and tempered than were the larger vessels of clay ; therefore we must come to the conclusion that these people did not have pipes and, consequently did not use tobacco ; which, however, cannot be said of the Neutrals or the other Iroquois tribes.

It has often been remarked that in the Jesuit relations there is no description or even mention made of those artifacts in stone which we vaguely

call bird amulets or ceremonial objects. Does not this silence on the part of the Jesuits prove conclusively that such objects were not in use among the Neutrals? And why is it that most of these amulets are found on land far removed from the village sites, or on villages which, judged by the character of the pottery found, shows them to have been more ancient than those which produce fragments of ceramic ware of better material and finish? Mr. Rathbun found quite a number of slate gorgets and other amulets on village site No. 2, and on the site in East Oxford Mr. Hart also found some fine specimens. Village site No. 1 and the other Neutral sites produced very few of these objects, and even these may have been found by their inhabitants on ground formerly occupied by the earlier and non-Attiwandaron race.

The ground axe is another implement which has never, so far as I am aware, been found on a Neutral site. Mr. Rathbun found four on the ancient village site on his farm.

The stone perforators from these ancient and recent sites also differ greatly. For instance, those from village site No. 1 are very small and rude, while those from Burgess lake and the camp at Baxter's are very nicely finished specimens indeed. The largest in my collection was found with seven or eight others on the latter place and is a very fine drill of the T-shaped type. Perhaps among the Neutrals, the bone awls, so numerous in their village sites, supplied their place.

SHELLS FOUND ON INDIAN VILLAGE SITES.

For the purpose of having the shells mentioned in last year's report correctly named I sent a representative collection of local land and fresh-water species to Dr. J. F. Whiteaves, of the Geological Survey of Canada, who very courteously undertook to determine them for me, and to whom I am indebted for most of the specific names given below.

Only three species of the Unionidæ family are found in the village sites in Oxford and Waterloo. The *unio gibbosus*, Barnes, of which two varieties are found—one with the purple and the other with the white nacre—is the most abundant. These, as stated in the report, were no doubt used as pottery slicks, and the flesh may have been used for food. I found valves on village sites Nos. 1 and 3, with the sides ground level. What the ultimate purpose of these shells was we can only surmise. We might assume that this was done to obtain flat disks for wampum, were it not known that no wampum of this kind was ever found in this part of the country. I found a pottery slick on village site No. 1, which seems to be a fragment of the shell of *Margaritana costata*, Rafinesque. On the site near Baden, in Wilmot Township, was found a decorticated valve of *unio ventricosus* Barnes, with two holes, about three-sixteenths of an inch in diameter, drilled through its side.

It is surprising that the aborigines, having any quantity of shells near at hand, should not have used them more extensively. The *unio luteolus*, Lamarck, of which none have yet been found in the ash-beds, would have been more serviceable than the smaller and more fragile *u. gibbosus*, but the Neutrals for some inexplicable reason seem to have preferred the latter.

The Helicidæ family is represented by only one species, *patula alternata*, Say. Its mottled shell is often met with in ash-beds. I found several that were pierced through the umbilicus. This appears to have been accomplished by breaking a hole through the shell at the apex, but it might also have been done recently, for the shells are very fragile.

Some small fresh-water univalves, *goniobasis livescens*, Menke, are also found, but none are pierced for stringing.

The marine shell, which I called "a species of *olivella*" in the report, is of the genus *marginella*, and the species *conoidalis*. The other shell, referred to as a marine species, is a fresh-water shell belonging to the genus *melania* and the family *melaniadæ*. Dawson, in his book entitled *Fossil Men and Their Modern Representatives*, says: "The wampum of the Iroquois was made of fresh-water univalves, probably the *melania*."

ROUGH NOTES ON NATIVE TRIBES OF SOUTH AFRICA.

BY FREDERICK HAMILTON, M.A.,

Correspondent of the Globe.

In offering these notes upon certain aspects of native life which came under my notice during my stay in South Africa, I must request my readers to bear in mind their entirely accidental and casual character. Mr. Boyle wrote to me after I had landed in South Africa suggesting that I get for him any information, or any objects of interest (not mere curiosities) from an ethnological point of view, and it fell out that very soon after receiving his letter my travels brought me near numerous native kraals. His remarks had quickened my interest in a people whom I found amiable, amusing and interesting, and I purchased from them what household objects I could carry, and from time to time noted down such details as I observed of their domestic habits. The entirely fragmentary nature of my observations are apparent. Inclination must incessantly yield to necessity when travelling under circumstances such as those under which I laboured, and my only claim is that it requires some courage to place before readers notes so random and so trivial as are those which follow.

I may add a word about a very doubtful authority whom I quote frequently. A paragon of servants, Moses Africa was of dubious value as a source of information upon ethnological subjects. He was a Cape boy, one of that mixed race which I believe has now no aboriginal tongue and speaks the languages of the white man, English and Dutch. Moses knew how to get on with the natives and regarded my interest in their domestic arrangements with a bland toleration, which his zeal in my service caused occasionally to deepen into positive interest. But I do not believe that he had any real or accurate knowledge of tribal customs or peculiarities. He made certain assertions which I am disposed to doubt; for instance, he never would admit that any article was a charm, and always assured me that all articles worn

were ornaments and nothing more. I had few or no opportunities of checking his assertions, and so have mentioned him when he is the source of my information.

18th February, 1900.—Near the outbuildings of the farmhouse by Paardeberg Drift I noticed a native tanning apparatus. It consists of three sticks lashed together in a triangle, with the skin of an ox attached in such a way as to form a deep pouch, with the triangular opening for mouth. This is erected on sticks, the oxhide bag is filled with a decoction of certain herbs, and in it the skins are steeped. The Boers appear to have adopted this native method, for I repeatedly noticed these tanning appliances near farmhouses. I have appended an odd extract suggested by these cortides.

3rd May, 1900.—Visited a moderate sized kraal near Thaba Mountain, the scene of one part of the battle of Hout Nek. The natives are Barolongs, of the old Moroka Kingdom, which was absorbed by the late Orange Free State about 15 years ago. There we saw mealies (i.e maize) pounded by two women with sticks about two feet six inches long and with rounded ends. For a mortar they were using the hub of an old wheel from a Cape cart. The women sat facing each other, the mortar between them, and wielded the pestles with one hand. Occasionally one would push the mealies back as they rose above the edge in response to the beating of the pestles in the centre. The operation reminded me strikingly of the method of pounding maize in vogue among our North American Indians, as described and illustrated by means of a photograph by Mr. David Boyle in the *Archæological Report* for 1899. The degree of skill needed to keep up the time so as to avoid blows upon the knuckles particularly struck me.

At this kraal I observed a diminutive seat of much the same design as a steamer chair. Thongs of leather supplied the body of the chair. These tiny stools were quite common.

The hens' nests in the kraal attracted my notice. These were tiny structures about a foot high, made of flat stones set on edge for the walls and also used for the roofs, mud being used to cement them together. Each compartment was large enough to shelter one hen, and they ran in an irregular line; half a dozen in all.

Subsequently saw the hens' nests of this identical pattern in Boer farms. The type is very natural in a country where wood is very scarce.

The kraal was composed of a number of rounded huts and two or three oblong houses, small, one storeyed and of stone, with thatched roofs. It was very curious to see the native predilection for rounded corners, subdued (I suppose through white influence) in the case of the main structure of these houses, appear again in the rounded mud wall or native fence of rough sticks or corn stalks which commonly marked off the court-yard of each house. The natives appear to lay great stress upon having a little yard of this nature in front of each hut, although no particular privacy is assured. I may add that Boer farmhouses not unfrequently possess courtyards of the same rounded shape. The farmhouse on the south side of Paardeberg Drift, which was used as a

hospital, exhibited this peculiarity. Further, nearly every native kraal in this part of the country had two or three of these oblong stone houses.

The huts were rounded. The roof is not a true arch; it was rather of the shape, in a measure, of the back of a tortoise—first concave, then convex. The shape was beautifully true in every hut I remember noticing. The roof is set upon a very low wall little over a foot or eighteen inches high, I should say, and the doorway is very small, the door itself being of wood. Entrance must be made upon hands and knees, or, at all events, in a very stooping position. I was curious as to the manner of swinging the doors, but did not get an opportunity of examining one closely. Over the door is a prolongation of the roof. These huts were noticeably neat and clean, whereas the square-cornered houses with their thatched roofs presented a tumble-down aspect.

At this village I saw a woman rubbing native grown tobacco on a flat stone with a smooth and worn egg-shaped stone of a size to fit the palm of the hand.

At this kraal I bought the conical straw hat, (specimen No. —). These hats are kept on the head by means of strings, as in this specimen. I was struck with the curious fact that the native weavers do not provide holes for these strings. The strings must of necessity be forced through, injuring the texture of the work. And yet the hats cannot stay on without the strings, and the natives, so far as I observed, do not sew the strings on, as our milliners do.

4th May.—At a farmhouse a short distance south of Welkom: Drift on the Vet River I observed a large rounded earthen pot, apparently of rude make, with a strip of rawhide, hair adhering, around the lip on the outside. Time did not allow for an examination. The natives here were Basuto.

9th May.—Bought at a Basuto kraal near Winburg a small girl's dress (specimen No. 22,125).

The bracelets which are extremely common in all of South Africa which I have visited, (viz. specimens Nos. 22,017-8) are of two main sorts;—(1) heavy, made of copper wire twined around (I suppose) telegraph wire; (2) light and far more artistic and elaborate, made of thin copper or brass (occasionally gold, I am informed) wire twined around a core of horsehair, and in consequence very flexible. The work often is excellent. It is done entirely by natives and I was subsequently informed that one tribe, the Shangaans (if the spelling be correct), dwelling in Portuguese East Africa, have the monopoly of the manufacture. Moses has assured me that no tribal variations occur and although patterns differ I never detected any preference according to tribe, such as exists in the case of beads. I have seen them of copper, of brass, of copper and brass wires alternating, and of copper with heavier rings of copper at intervals in the work. A Cape boy whom I employed as a driver for a couple of days told me that he had one which showed three colours of wire.

I subsequently was told that the Shangaan workman makes these bracelets by means of a flat stone and a horn. He makes the ring of horsehair of the required size and then, taking the wire, "crimps" it with the end of the horn upon the stone. He works rapidly, the wire coils and he draws it tight

around the core. A good workman can make one in a few minutes and they certainly are cheap. My standard price for them was sixpence and the natives seemed exceedingly willing to sell them at that price.

In this kraal I thought I saw a charm on a small boy's tiny apron (his sole garment). Moses, however, assured me that this was simply an ornament

26th May.—Bought to-day at a kraal near Wonderpan, about twenty miles south of Kroonstadt, the "Kaffir Handkerchief" (specimen No.) from an old Basuto woman. This implement (whose use I dimly recollect having seen alluded to by some African traveller, I believe Livingstone) is a small arrowheaded pewter implement, about inches long, which is used for picking the nose. Moses informed me that this is used by the old people alone. The natives regarded my desire to own this as a huge joke.

Attached to this implement was the circular brass blanket buckle (specimen No. 22169). This is native made and was these cond such implement which I had seen ; in both instances they were used by old people. No distinction of sex is made, in the use either of this implement or "handkerchief." The mechanical idea involved in the working of this brooch is worthy of attention.

Corporal Cameron (to whom I refer later) was inclined to regard the "handkerchief" as a charm, or at all events as supposed to possess some magic powers. Its small size, its shape, like that of a miniature spear, and particularly the swelling in the middle of the "handle" were his reasons for thinking this. Against this must be set the fact that the people from whom I got it made no mention of its possessing any such use and appeared to regard it simply as an article of domestic convenience. The old woman who was the owner was reluctant to give it up, but found three shillings enough to induce her to part with it.

The pale blue beads attached to the "handkerchief" are peculiarly Basuto. Since Moses told me that this shade is appropriated by this tribe I have more than once identified native articles as Basuto, occasionally rather startling owners of "curios" by this simple bit of knowledge. The Basutos appear to have an aversion for red beads. The beads themselves I regarded as hailing from Birmingham, and the testimony of Moses confirmed me in this view.

I had noticed that native kraals seemed invariably (so far as my observations extend) situated some distance from the water. On this day I questioned Moses upon the subject and he assured me that this was intentional. The reasons, so far as I could extract them from him, are :

(a) Fear of malaria (suggested by myself, agreed to by Moses ; obviously an unsatisfactory means of acquiring information.

(b) To preserve the children from the danger of falling in.

(c) To preserve the water from being fouled by the children.

The water, it must be remembered, is usually got from dams, i. e., artificial ponds, and is therefore stagnant. It may be crediting the natives with unusual hygienic knowledge to suggest that they take precautions to avoid making the water-supply worse than it is, but I cannot help recollecting in

this connection the cleanliness of the Basuto and Barolong huts and kraals, so far as I observed them.

At this kraal I noticed from a distance a woman rolling something, possibly maize, more probably tobacco, upon a flat stone, which appeared worn smooth and hollowed out, and with a stone roller.

A frequent article in a kraal is a very rude gallows frame of two rough branches of trees set upright with a cross piece lashed eight or ten feet from the ground. I have been told that this is used for suspending slaughtered animals for skinning and cutting up. I often observed bunches of ears of of maize suspended from the cross-bars.

The kraal usually has attached to it a small quantity of cultivated land, in which maize, Kaffir corn, and similar grains, together with tobacco, constitute the staples. The husbandry of course is rude and the "garden," to use the rather odd South African term for these fields, is usually a forlorn-looking affair. The information I got from Moses led me to regard the natives in the late Orange Free State as in a condition of serfdom. I was informed that each big farm has upon it a kraal with a little population of Kaffirs, who rent from the farmer a bit of ground for their cultivation and grazing rights over a further portion. From them the farmer draws his labor supply. The natives may not leave the farm without a pass, and natives may not come upon a farm without the permission of the owner. Each kraal has its headman, who is responsible for the rent and who is the medium of communication between Boer and native.

May 29, 1900. At a small kraal at the 619th mile of the Orange Free State Railway, near Leeuwspruit, north of the Rhenoster River, I got a brass bangle, rigid, and of European manufacture. The woman who sold it to me asked me to put it on and grinned delightedly when I did so. I attributed this to coquetry, but Moses told me it was probably her pleasure at the condescension. He explained that the Boers often refuse to touch anything used by the natives. Later in the day I gave this to an old Boer who asked for a bangle (seeing my little collection) to cure rheumatism.

May 31, 1900. At a largish Basuto village close by Vereeniging, O.F.S., I bought largely of bangles, of a small wire type. Also an excellent bowl (since stolen) and two Kaffir beer strainers. These things were made of a small wiry reed which grows by streams. All were in use at the moment of buying. The bowl was of extremely solid and heavy construction and Moses stated that when it was wet it would hold water. The two strainers (specimens 22,112-3 in the Museum) are of differing patterns and it is important to remember that I bought them in the same village, from the same people, so far as I can recollect.

A woman with her hair "done up" in straight tufts, with bits of grass for curl-papers, acted as intermediary, as she knew a little English and had the requisite size, lungs and chest. When the buying languished she coolly demanded her "per cel," i.e. percentage—commission. I was amused, but Moses assured me that in Johannesburg this habit is universal. I presume that this has been introduced by the Asiatics, who are very numerous there.

These people, living on the outskirts of a village (devoted to the mining industry), were very noisy and forward, with manners far worse than those of the rural natives.

In this connection I may add that I found the manners of the Kaffirs in their kraals distinctly good. While the transport natives were a cheeky lot, much spoiled by their contact with the soldiery, their cleanliness struck me. At any river where the army halted they could be seen in numbers not only bathing, but soaping themselves for a good wash. Their personal habits, on the whole, seem to be modest.

May 31. At a small place called Smaldeel, 8 miles north of the Vaal, where the plain of the Vaal ends and the Rand begins, I visited a farm tenanted by a number of Basutos of the Maoa (?) clan. They have two perpendicular marks on the cheek as a clan mark. The clan mark which I most frequently saw were three straight lines radiating from the corner of the mouth.

This was a very rich farm and the buildings were extensive and scrupulously clean. The houses were of the usual oblong, thatched type, with extensive court yards, floored with hardened red clay, and with walls some six feet high apparently of the same hardened red clay. These courts were piled high with forage (manna, etc.), mealies (i.e. maize), Kaffir corn, etc. The hard floors were extremely clean. The cleanest farmhouse I have seen here. Everything betokened rude wealth. The outhouses were numerous and crammed with produce. Cattle were fairly numerous. Pigs, chickens, dogs, etc., abounded, and despite the troubles of the land a good pony was in one stable—which the owner rather reluctantly sold to me for £8. Part of the farmer's property was a big farm waggon. We conjectured that this farm was rented from some Boer.

June 1. At the Klip River Hotel (also known as Olifant's Vley and Eikenhof) I was given an assegai, made by the Red Kaffirs, a tribe whose habitat is stated to me as near King Williamstown and Grahamstown, in Cape Colony. The most noticeable characteristic of this weapon is the spoon shape of the blade. I am informed that this spoon shape is universal, each tribe having its own variation. The purpose, evidently, is to set up a twisting motion, so as to increase the range.

This is a stabbing assegai. The proper throwing assegai has a very slight shaft about six feet long. The native, in preparing to throw the assegai, gives a peculiar wrist-twitching motion which, it is said, no white man can acquire. This sets the whole shaft vibrating which, with the rotary motion set up by the spoon shape on the blade, gives it range. The transport Kaffirs on several occasions threw this assegai about thirty yards. They told me that the natives in the kraals practice throwing the assegai daily.

It may be added that the natives in the Dutch republics were forbidden to possess assegais.

Further, I was told, that the natives are abandoning the use of assegais and making greater use of knob-kerries and battle-axes in the fights which they have with each other.

June 23. The natives in the compound at Elandsfontein are (a railway junction ten miles east of Johannesburg) of the C'unquaaun (pronounced Chunkun, so far as my ear could make it out) tribe—practically Zulus. They were Zulus until about twenty-five years ago, when they branched off and settled in Portuguese East Africa. From them I got a knob-kerry, the wiring on which is undoubtedly Zulu work, and of good quality; also the eating dish, 22,204, small blue and black necklace, etc. .

Captain S. Maynard Rogers (D Co., R.C.R.) gave me the harp, which he procured at the compound belonging to the Brakpan Colliery, six or eight miles east of Boksburg. I do not know the name of the tribe to which this belongs.

June 24. The pipe (22,131) was made by the M'Kosa (Cape Colony) Kaffirs. I bought it at Elandsfontein from a Kaffir who had just been smoking it.

The "necklace," or rather, leg-bangle (22,128) of blue and black beads is of C'unquaaun make. I bought it from a native in the Elandsfontein compound. Moses assured me it was worn simply as an ornament. Corporal Cameron of Lord Loch's Horse, who was retained for a while as interpreter to the Intelligence Officer at Springs (Captain Ogilvy, Adjutant, R.C.R.) gave me a rather interesting reading of its significance. According to him it answered to an engagement ring among white people. He said that probably the beads were bought by the young man and worked up by the young woman. Within each of the little square "cushions," he said, would be found a pinch of sand or dust, intended as a charm to protect the wearer. From the varieties of beads worn and the arrangement he said he could identify the tribe (C'unquaaun), the lady's family (which was highly placed), her social status (which was excellent), etc. He even went so far as to deduce from the tiny pink beads on the loose-flying horse-hairs just how far away was the wedding day—about six months from the date of the making of the ornament

Corporal Cameron assured me that fashions rule quite strongly in the native world. I had observed the fondness of the Basutos for pale blue beads, and the natives seem to have tribal preferences; but apart from this fashions seem to come and go. Corporal Cameron, who had been a peregrinating trader among the natives, told me an anecdote to illustrate this. It appeared that on one occasion he reached with his waggon-load of wares a certain Zulu tribe. He had supplied himself with pink beads, and found on arrival that pink beads were out of fashion and a variety of white bead was all the rage. The pink beads were unsaleable and he could not supply the demand for white beads, with which he was very scantily supplied. He was fairly in despair when the feminine portion of the family of a chief induna (or head man) came to inspect his wares. He made shift to give them the white beads which they asked for, as they were of great social consequence, and then with a fine flourish of compliments presented them with a quantity of the despised and rejected pink beads, about a pound's weight. It being a present the ladies accepted the pound of beads; and having them, they worked them

up into some sort of ornament. Soon some species of social function took place at which these ladies appeared in this bead-work. They were the local social leaders, their appearance set all the other ladies on the *qui vive* to follow the fashion—and Cameron sold all his pink beads at a profit.

Cameron added some details to my personal observations upon the making of snuff. When the native tobacco is rubbed to a powder, he informed me, the native women are fond of adding a little gin, making a paste, and allowing the gin to evaporate. The strength of the resultant snuff may be imagined. He added that when gin is not to be had a more easily obtained liquid is sometimes used.

Cameron gave me specimen No. 22,127, a necklace made of alternate pieces of sea-shell and wood, the latter probably the Mpani or Mopani, a species of mahogany, from which most knob-kerries are made. The comb was attached by a bit of leather thong and was in active use when the specimen was got by Cameron from its native owner. It comes from Portuguese East Africa—(further information I could not get). Evidently, however, the maker lives near the sea-shore.

A small necklace which I obtained at Elandsfontein, which was subsequently stolen, was small and plain, but in some respects similar to the blue and black ornament already mentioned. It was composed of three small square "cushions" extremely similar to those of the bigger ornament, and composed of much the same sort of beads; it had no loose horse hair or flying beads. It was strung upon a strand of horse hair and two of the "cushions" were separated from the third by a peculiar knot, very much like that in specimen No. 22,126, the bits of ivory carved to represent claws. Cameron stated that this was probably a necklace given by an elderly woman to a young man, presumably her son, upon the occasion of his leaving home. The one cushion represented the wanderer, the two or three the family, the knot the dividing distance.

I am unable to say whether the ivory necklace mentioned in the foregoing paragraph has any such significance or not. Neither do I know to what tribe its original owner belonged.

The "doppy," (22,116), is a well-known and very peculiar article of attire, affected by the Zulus.

I was told that sometimes these articles are made of grass and are flexible.*

The snuff-box (22,124) is Zulu, or O'unquaaun. It is made from the hardened rind of the Mahobohobo, a species of fruit. The eating dish (No. 22,204), was being used in the compound ten minutes before I bought it.

It is worth noting that the "boys" in the compounds are forbidden to bring weapons in with them. The assegais, battle-axes, etc., which we pur-

* Lieut. Geo. E. Laidlaw informs us that doppies may be purchased as articles of merchandise, in country stores, and that the doppy is worn mainly on account of the prevalence of insects.—D.B.

chased at Elandsfontein, Springs, etc., were, I am convinced, quite new; the knob-kerries and shields may have been taken in with them.

At the colliery at Springs I visited the compound. Four tribes were represented, the Machopis, from the east coast, the M'Nyambaans, from the east coast, the O'unquaauns and the Shangaans. Among the objects which I noticed was the apparatus for a native game. Three rows of holes are dug a couple of inches deep and from four to six inches square; about fifteen holes are in each row. Two natives will sit opposite to each other at this set of holes, like chess players, and move bits of stone from one hole to another. The compound manager asserted that no white man had ever mastered the principles of this game, and it appears that the natives will play at it for an indefinite period.

The following miscellaneous notes on the Zulus may prove interesting with respect to a people so recently brought into some prominence in connection with the presence of our "boys" in Africa:

Lord Lubbock says they can carve fair representations of animals and plants, and are fond of doing so, but they have great difficulty in understanding drawings, and perspective is quite beyond them. They are backward in matters of art, but are not altogether deficient in the idea. "Their idols cannot be called indeed works of art, but they often not only represent men, but give some of the African characteristics with grotesque fidelity."

"Among the Bachapin Kaffirs, those who have distinguished themselves in battle are allowed the privilege of marking the thigh with a long scar, which is rendered indelible and of a bluish color by rubbing ashes into the fresh wound."

Lichtenstein says he could not discover that the Koosa Kaffirs had any word for eight; that few of them could reckon beyond ten, and many did not know the names of any numerals, yet if a single animal was missing out of a

[NOTE.—In "Fifty Years in South Africa," a vivaciously written book by Mr. G. Nicholson, occurs a curious biographical note of which I am reminded by my reference to the native method of tanning. Mr. Nicholson went to South Africa in 1844 and held a distinguished place among the many great sportsmen whom that land has known. On page 168, in speaking of Mr. Krüger, Mr. Nicholson says:—

In his younger days Paul was a "mighty hunter before the Lord," and flourished exceedingly on the profits made by the extensive tanning work he was skilled in. Game of all kinds abounded near his large estate in the Rustenburg district, and any quantity of hides was easily obtainable, as were also bark and other necessary articles. On this estate several hundred Kaffirs, under a headman named Kamian, were located and educated so far as to know that they were to perform all the varied duties of Gibeonites to the utmost endurable limits. These people were not ruled with rods of iron, and I never heard that whips of scorpions were employed to discipline them, but other instruments made of rhinoceros or hippopotamus hide are very effective persuaders when wielded by muscular Boers, and the muscle and the whips were always to hand when requisite. Gibeonites and black ones at that, generally had to put up with a good allowance of "Sambok" in those days, especially at the hands of the élite of the puritanical pietists, whose principles and practices were then in the ascendant. Kamian and his people at last got tired of this sort of thing; suddenly fled over the Marico, in a body, locating themselves very comfortably in a suitable place, where the tribe still lives in peace. Soon after this Kaffir exodus Paul began to take an active part in the curious politics of the country . . .]

herd of several hundred they noticed it at once. To them, "talitsapa," or six, literally means "take the thumb;" that is, having used the fingers of one hand for five, take the thumb of the next. "The numbers," he proceeds, "are commonly expressed among the Beetjoans by fingers held up, so that the word is rarely spoken; many are even unacquainted with these numerals and never employ anything but the sign. . . . I could by no means arrive at any denomination for the numbers five and ten. Beyond ten even the most learned could not reckon, nor could I make out by what signs they ever designated these higher numbers."

Many tribes believe that everything has made itself, and Canon Callaway, in *The Basutos*, declares that the Zulus are destitute of any notion of creation. Casalis, another traveller, came to the same conclusion. He says: "Those whom we questioned on the subject have assured us that it never entered into their heads that the earth and sky might be the work of an Invisible Being."

Canon Callaway states that a Zulu told him the people did not try to find out reasons for things, and the Rev. Mr. Moffat declares that they were wholly destitute of "theological ideas."

In "Faiths of the World," by Dr. Gardner, we read "From all that can be ascertained . . . it seems they have no idea of a Supreme Intelligent Ruler of the universe." Another writer tells us that some of these people thought white men made the world, and when Moffat tried to explain to a chief the nature of God, the chief said, "Would that I catch it! I would transfix it with my spear."

Dreams and shadows give them some idea of invisible beings, and "they have a curious idea that a dead body casts no shadow."

They blame the spirits of recently deceased and discontented ancestors for causing diseases, but this seems to be about the only power attributed to the defunct. Sometimes the dead, or *amatongo*, are supposed to reappear as snakes, in which case a bullock may be killed and part of it put away for the use of the dead.

Lord Lubbock quotes Mr. Casalis as saying, after a residence of twenty-three years in South Africa, "that morality among these people depends so entirely upon social order that all political disorganization is immediately followed by a state of degeneracy, which the re-establishment of order alone can rectify," and Lubbock adds: "Thus, then, although their language contains words signifying most of the virtues, as well as the vices, it would appear from the above that their moral quality was not clearly recognized; it must be confessed however, that the evidence is not very conclusive, as Mr. Casalis, even in the same chapter, expresses an opinion on the point scarcely consistent with that quoted above."

The general belief respecting the character of the Zulus and their congeners corresponds more or less to that of Mr. Hamilton as given in his notes preceding.

Physically, the Zulus are among the best of the human race, and in appearance they are, as a rule, pleasing.

BIBLIOGRAPHY OF THE ARCHÆOLOGY OF ONTARIO.

Third Collection.

By A. F. HUNTER, M.A.

The following list of references to literature upon the aborigines of Ontario continues the work of two previous instalments—the first in the Report for 1896, the second in that for 1897. As we stated in connection with the former instalments, these lists are not exhaustive, but are intended to direct the student of archæology where he will find literature on the particular branch of the subject he is pursuing.

Scattered throughout the pages of books on Canada, there are to be found large numbers of instructive passages bearing on special features of Indian life and customs. In fact, only a small portion of the literature of the Indians is to be found in books and articles specifically devoted to that subject. A guide to where some of these may be found will be useful, and this Third Collection consists partly of such references.

Besides these, it includes some interesting features of the relations of the Indians to their white successors, such as:—copper mining at Lake Superior, the evolution of "Trespass" roads from Indian trails, and the education of the Indians. What is known as "New Ontario" receives a fair share of attention. It also contains a considerable number of newspaper references. Many paragraphs lie buried in the files of local newspapers, and though often valuable, are difficult to find without some reference list.

Abbott C. C

Primitive Industry.

At p. 173, he describes and figures (fig. 155) a whole clay pot from near Wiarton, Bruce Co., Ont., found under a cliff, 100 feet high, at Colpoys Bay.

Beauchamp, Rev. Wm M.

Aboriginal chipped stone implements of New York. State Museum Publications, Vol. iv, Bulletin No. 16. Albany, 1897.

Refers to places (p. 13) in Welland Co., across the Niagara River from Black Rock in Buffalo, where blocks of hornstone had been detached by the aborigines.

Polished stone articles used by the New York aborigin-

Beauchamp, Rev. Wm M
—*Con.*

es. Bulletin of the N. Y. State Museum. Vol. 4, No. 18 (Nov., 1897.)

Has references to some Ontario relics.

The Antiquarian, (Columbus, O.) 1897. 1303, 185, 249.

Remarks on certain relics from Ontario.

Bell, Robert, B.A.Sc., M.D., LL.D

Annual Report, Canadian Geological Survey, vol. 5, (Part I.), 1890-1. Report F, Appendix iv.

P. 91 Meanings of 46 Indian geographical names in the country around Sudbury, Ont.

Bigsby, John J, M.D.

The Shoe and Canoe, or Pictures of Travel in the Canadas.

Dr. Bigsby made a tour of the Lake of the Woods in 1823 as secretary to the Boundary Commission. His memoirs were not written until 1850.

Vol. II, p. 273, fur traders' expedients for preventing a rival from entering a rich fur country—the extermination of every animal.

Blue, Archibald.

Fifth Report of the Bureau of Mines, 1895. Toronto, 1896.

Section III., p. 110. Alex. Henry's description of Caribou Island (1771), and tradition of enormous snakes there; p. 114, description of a skeleton found by Dr. Coleman (see p. 74) at Lac des Mille Lacs; pp. 115, 134, Chief Peter (a photo of whom appears in the Sixth Report) of Poplar Point Reserve, and native customs; p. 138, Legend and origin of the name of Windigoostigwan Lake, and cannibalism there (see also Keating, Wolseley, Henry); p. 162, Fort St. Pierre, named in honor of La Verandrye, and the Coutchichin Indian reserve; p. 165, copper spear-head found on the Rainy River.

Section IV, (a paper by Archibald Blue read before the Hamilton Association January 16, 1896,) pp 196-201, the Human History of New Ontario, with references to the aborigines. P. 209, earliest attempt at copper mining by white men, on the Canadian shore of Lake Superior, in 1770. (1771 ?)

Notes on Skulls. Proc. Can. Inst. Vol. II. (1901), p. 95.

Describes skulls found within the earthworks near Clearville, Kent county.

Borron, E. B

Report of the Royal Commission on the Mineral Resources of Ontario. (Toronto, 1890.)

In the evidence of Mr. Borron (p. 92) he mentions that the only Indian copper diggings of remote times, known to him on the north shore of Lake Superior, are at Cape Mamainse

Borron, E. B —Con.

and upon Isle Royale. Again, at p. 98 refers to the Indian digging at Point Mamainse.

Boyle, David

Archæological Report for 1897.

Appendix to the Report of the Minister of Education, Ontario. 87 pp., 52 illustrations. Toronto, 1898.

Presentation, p. 1; additions to the museum, 3-15; methods of working, 15; drill rest, 16; clay pipes, 17; stone pipes, 21; stone discs, 22; bone specimens, 23; shell work, 24; copper, 25; textile work, 25; medicine mask, 30; brass tomahawk, 31; the Jesuit (?) stone, 32; stone tool work, 33; recent primitive pottery, 34; Christian Island, 35-42; Brantford township 42-3; Malahide township, 43-4; Orillia township, 44-5; old maps, 46-9; Balsam Lake and vicinity (with three ground plans of villages), by Geo. E. Laidlaw, 50-65; Bibliography of the Archæology of Ontario, Second Collection, by A. F. Hunter, 67-87.

The Primitive Tribes of Canada. Toronto *Evening News*. Sept. 24, 1898.

A two-column article on their tools and weapons, with special reference to those of Ontario.

Archæological Report for 1898.

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Presentation, p. 3; accessions to the museum, 5-43; notes on some specimens, — pottery, 43-44; clay pipes, 45; stone pipes, 46-49; gorgets, or pendants, etc., 49-50; stone adze, 50; bird amulet, 50-51; cutting tools, 51-52; bone harpoon, 52; copper tools, 53; Indian flute, 54.

The Pagan Iroquois, 54; Pagan conditions, 56; old time Paganism, 58; Recent Indian Religions, 62; Skane-o-dy-o and Iroquois Paganism, 75; Mid-winter Festival, 82; Burning of the White Dog, 91, Scattering of Ashes, 106; Opening Speech, Mid-winter Festival, 115; Cayuga Spring Sun Dance, 117; Seneca

Boyle, David—Con

Spring Sun Dance, 121; Green Corn Dance, 124; Peach Stone Game, 126; Feast of the Skeleton, 128; Opening Festival Address, 130; Children's New Year Treat, 135; the Word "Niyoh" (God), 136; Pagan Hell, 137; Spraying of Heads, 139; Dream Interpretation, 142; Iroquois Music (with notes by Alex. T. Cringan), 143; Society of the False Faces, 157; Some Myths, 160; Mixed Blood, 167; personal names, 168; place names, 171; Iroquois gentes, 173; chiefship, 175; dress, 179; dwelling-houses, 180; fellowship, 180; marriage and separation, 183; Death Customs, 184; A Chief's Death, 185; Council Meetings, 186; Maize as Food, 187; Disease Among the Iroquois, by Dr. R. H. Dee and Dr. L. Secord, 189; Archæological Notes, Victoria county, by G. E. Laidlaw, 196-202. Appendix (A), Delawares, 203; (B), List of Indian Dances, 205.

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Dawson, Sir Wm.

Canadian Naturalist and Geologist. March, 1857, pp. 3-9.

In a paper on the geology of Point Mamainse, Lake Superior, he notices and describes the ancient Indian copper diggings there. This is reprinted in the Third Report of the Ontario Bureau of Mines, 1893, p. 80.

Dee R. H., M.D.

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Oct. 13, 1898.

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Edgar, Mrs. Matilda.

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Farmer, Miss E. Yates

The Six Nation Indians. Toronto *Globe*, March 5, 1898.

With 10 illustrations.

Fessenden, Rev E J., B.A.

Niagara on the Canadian Shore. Transactions of the Wentworth Historical Society, vol. 2, (Hamilton, 1899), pp. 38-48.

At p. 39, notices Hennepin's visit (1678) to the site of Toronto, then the Indian Village of Taiaiaagon, and to the site of Niagara-on-the-Lake, a fishing village of the Senecas; p. 47, railways followed the Indian trails; Chippawa village, at the head of Niagara Falls, and the tradition of the annual sacrifice of an Indian maiden.

FitzGibbon, Miss Mary Agnes

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At p. 107, notices Indian remains found on Battle Island in the Bay of Quinte (an island "about half to three-quarters of a mile west of where the Moira river empties itself"), and implies a connection between these remains and Denonville's skirmish with the Iroquois of that region in 1689.

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Harvey, Arthur

Proceedings of the Canadian Institute, Third Series, vol. vii, (Toronto, 1890.)

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Henry, Alexander, jr

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Reports of progress on the North-west Exploring Expedition. Toronto, 1859.

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Vol. I, (Toronto, 1894), pp. 35-40, Indian Schools, Bay of Quinte and Grand River.

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Vol. IV (Toronto, 1897) pp. 118-129 Education of the Indians in Upper Canada. 1835-1838.

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Hunter. A F, M A — Con

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Vol. 10 (1897) Nez Percés, or Beaver tribe (p. 322), Contarea (p. 322), Aweatsiwaneronous (p. 322), legend of the bereaved Indian (p. 324), tobacco offerings (p. 324), superstition as to drowning (p. 325), Andiatia (p. 326), Angouiens (p. 328), Aronté (p. 328).

Vol. 12 (1898) Khiondaësahan (p. 272),

Vol. 13 (1898) Teanaustaye (p. 269), Toudakhra (p. 270), Khinonascarant (p. 271), Anonatea (p. 271).

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Vol. 19, p. 269, Ste. Marie on the Wye (with sketch map) ; 32 villages. p. 271, St. Louis, Ste. Anne, St. Denis, St. Jean, St. Francis Xavier, St. Charles.

Vol. 20, p. 305, St. Jean Baptiste, St. Joachim, Ste. Elizabeth ; p. 307, St. Peter and St. Paul ; p. 308, St. Jean, St. Mathias, St. Simon and St. Jude.

Vol. 21, p. 316, Kandoucho ; p. 317, Tsohahissen's village, Teotongniaton (St. William).

Vol. 23. Four mission villages, Nadouessis.

Notes of sites of Huron Villages in the Township of Tiny (Simcoe County) and adjacent parts. An Appendix to the Report of the Minister of Education. Toronto, 1899. 42 pp. With map and 17 illustrations.

Hunter, A F., M.A.—*Con.*

Prepared with a view to the identification of those villages visited and described by Champlain and the early missionaries. Remains of forty-nine villages are described and twenty-four bonepits.

Notes on sites of Huron Villages in the Township of Tay (Simcoe County). Appendix to the Report of the Minister of Education. Toronto, 1900. 36 pp. With 4 diagrams and 3 cuts.

This was printed separately and as pages 51-82 of the Archæological Report for 1899. The sites of 46 villages are described.

James, C. C., M. A.

The development of Agriculture in Ontario. Appendix to the Report of the Ontario Bureau of Industries, 1896. Toronto, 1898.

At p. 30, notes that the first settlers travelled overland by the Indian trails and that the earliest roads followed these trails, "being straightened and improved in after years." Note (13) on this passage reprints comments on the same subject. (See A. W. Campbell, C. E.)

(See also under *Napanee Beaver*.)

Kearney, Rev. L. C

Origin of the Indians, pages 164-165 in the Archæological Report for 1899. (Toronto, 1900).

Assigns to them a Hebrew origin.

Keating, Wm H.

Narrative of an Expedition to the source of the St. Peter's River in 1823.

Vol. II., p. 128, cannibalism among the Oschekamega band of Indians, near Cannibal or Wendigo lake.

Kelly, Dr. M. J

In "Documentary History of Education, Upper Canada." Vol. I., Toronto, 1894. pp. 331. (By Dr. J. G. Hodgins.)

At p. 39, gives a sketch of the New England Company, or School Society and the opening of schools among the Six Nation Indians of the Grand River in or before 1827.

Ketchum, Wm.

Memoir of Capt. Joseph Brant-Brantford, 1872.

P. 97, the war dance ; p. 99, the "serpentine dance," reprinted from Campbell's Travels. This book was issued anonymously, but is known to have been written by Wm. Ketchum.

Laidlaw, Geo. E.

Remains in Ash Beds at Balsam Lake. The American Antiquarian, Vol. XIX., pp. 271-275. (September and October, 1897).

Fourth Paper in the Series—"Aboriginal Remains of Balsam Lake." It classifies ash-beds into two kinds—"carried" and 'undisturbed'; gives the relative frequencies and positions of relics in each kind of ash-bed ; with a page of cuts (ten) of pottery fragments from Balsam Lake. An additional plate of illustrations containing 19 figures and belonging to this article, appears in Vol. XX., No. 1.

Miniatures, or Diminutive Relics. American Antiquarian, January and February, 1898. Vol. 20, No. 1.

Describes and compares diminutive relics—axes, chisels, arrowheads, pots, pipes, rings and beads—from Ontario with those from other places. Has 1 plate, 22 wood cuts of relics, of which 13 are from Ontario. The figures of pipes, pots, ring and bead, celts, chisel, arrowheads, are given in their natural sizes.

Laidlaw, Geo. E.—*Jon.*

Horn Relics in Ontario. American Antiquarian. March, April, 1898. Vol. 20, No. 2, p. 65.

With 3 pages (20) illustrations. The article surveys the subject, with 20 examples.

Balsam Lake and vicinity. pp. 51-65. Archæological Report for 1897. (Toronto, 1898).

This article describes village sites recently examined, with ground plans of three sites described in former reports.

Archæological Notes, Victoria County; pages 196-202 in Archæological Report for 1898. (Toronto, 1898).

This article describes relics obtained and sites and pits visited during the season of 1898.

Some copper implements from the midland district, Ontario; pp. 83-90, Am. Antiq. March and April, 1899. Vol. 21.

General remarks on copper implements followed by figures and descriptions of eight relics found (with one exception) in the Balsam Lake district; cuts of five other Ontario copper relics are shown, but not described; also a plate showing three groups (nineteen relics in all) of copper implements from the great lake region, viz., (1) Wisconsin, (2) Brockville, Ont., (3) Southern Ohio, for purposes of comparison, without descriptions.

American Archæologist Vol. 3, Part I. Jan. 1899. Columbus, O.

Letter giving figures and descriptions of two relics from Balsam Lake, Ont.—(1) stone pipe, (2) horn comb.

(North) Victoria County, pages 41-50 in the Archæological Report for 1899. (Toronto, 1900.

Laidlaw, Geo. E.—*Con.*

Describes new sites examined during 1899, and gives particulars of the specimens donated to the museum in the year.

Latham, R.G., M.D.

The Ethnology of the British Colonies and Dependencies. London, 1851.

Includes Ontario.

Lefroy, Capt. J. H.

On the probable number of the native Indian population of British America. Canadian Journal (First Series), Vol. I. pp. 193-198.

An exhaustive paper on this subject read before the Canadian Institute, May 1, 1852.

Lindsay Post.

Sept. 30, 1898.

In Fleetwood correspondence a notice of the discovery of an Indian skeleton appears.

Lindsay Watchman.

Sept. 30, 1897.

Paragraph noticing the finding of a flint arrow head and a large number of lead bullets, imbedded in a log and struck by the saw in the Lakefield, Ont., mill. The ring marks showed them to have been there nearly 200 yrs.

Lizars, Robina and Kathleen M

In the days of the Canada Company. (Toronto, 1896).

P. 96, descriptions of three kinds of Chippewa canoes, formerly in use at Goderich—birch-bark, dug-out, and the elm canoe; p. 97, methods of making fancy work in vogue among Chippewa squaws; p. 97, ancient Chippewa burying-ground on the shore of Lake Huron, Colborne Township; p. 115, discovery of a feld-spar vase at Goderich; p. 400, Indian trail near Goderich, and burying ground near Owen Sound; p. 426, Indian grave on the site of Stratford; p. 435, an early Indian camping-ground at Stratford (about the year 1830).

McAinsh, John M.

The Aborigines. St. Marys
Argus, June 23, 1898.

No. 2 in the series of articles "The Old Pioneer Days of Nissouri," treats especially of the Munceys, who occupied that district when Europeans first settled there about 1820. Describes also relics found in the vicinity of Little Lake, East Nissouri, Oxford Co.

McGregor, Dr J A.

Lake Medad and the Kwin
hi-bi-hah collection of
Indian relics.

A lecture to the Hamilton Association during the year ending Apr. 30, 1897.

McKenzie, Sir Alexander.

Voyages from Montreal to the frozen ocean, 1789. Original edition, 4to, London, 1801.

At p. liv., in his account of the route from Lake Superior to Rainy Lake, he explains the name of "Rock in Arrows" on Lac la Croche or Crooked Lake—'into one of the horizontal chasms of the rock a great number of arrows have been shot.' The explanation then follows.

**Mason, Otis Tufton, A M.,
Ph D.**

Woman's Share in Primitive Culture. New York, 1894.

This work describes generally the occupations of aboriginal women, especially those of North America. No references to Ontario Indians, as such, appear; but the following concern the tribes in the province: p. 33, resemblance of Algonquin and Eskimo steatite pottery; p. 44, the basketry of Algonquin tribes; p. 99, most pottery north of Mexico is constructed by coiling; p. 106, the production of black pottery ware by 'secondary burning' or smudging to dye it a permanent black (a practice followed to some extent among the Hurons); pp. 144-5, the fireproof qualities of soapstone, used for tobacco pipes,

**Mason, Otis Tufton, A. M.,
Ph D —Con.**

etc.; p. 237, women's buckskin skirts, among central North American tribes, of full length; p. 240, tracts of land used for communal cultivation among the Wyandottes; p. 252, the lighting of fires upon the graves of the dead, among Algonquins (quoting Yarrow).

Milton and Cheadle

The North-west Passage by Land. By Viscount Milton, F.R.G.S., F.G.S., etc. and W. B. Cheadle, M.A., M.D., Cantab., F.R.G.S. Eighth edition, 1875.

P. 118, the construction of the Cree language which extends into Western Ontario; absence of the consonants d, f and l from the Cree alphabet; p. 122, some words identical in Cree and English.

Montreal Daily Star.

Feb. 26, 1898.

Article, "Street Tablets in Montreal," (p. 5) includes notice of the site of Hochelaga and relics found there.

Moore Clarence B.

Certain Aboriginal Mounds of the coast of South Carolina. Philadelphia, 1898.

At p. 149 notices earthenware discs found in S. C. and as far north as Balsam Lake, Ont., where G. E. Laidlaw has met with great numbers in ash beds.

Murray, Hugh, F R S E.

Historical and Descriptive Account of British America. Edinburgh, 1839.

Among other things it deals with "the manners and present state of the aboriginal tribes."

Napanee Beaver.

Oct. 26, 1900.

Enquiry as to the camping ground where Champlain spent the first five weeks of the winter of 1615-16. The opinions of T. W. Casey and

Napanee Beaver.—Con

Dr. Beeman favor Mud Lake or Varty Lake in Lennox and Addington county as the probable scene of the sojourn.

Nov. 16, 1900.

Enquiry by C. C. James, M.A., deputy Minister of Agriculture, Ontario, as to Champlain's camping ground in the country north of the Bay of Quinte.

Orillia Packet.

May 19, 1898.

Notice of a sword blade found in Medonte township, Simcoe Co.

Ottawa Free Press.

September 10, 1898.

Article describing the discovery of seventeen skeletons on an island in Lake Deschenes, near Aylmer on the Ottawa river.

Peet, Rev Stephen D.

Bone Age in Europe and America. No. 6, Vol. XIX., American Antiquarian (Nov. and Dec., 1897.)

Compares bone relics from Ontario ashbeds, as described by G. E. Laidlaw, with relics from bone caves in Europe. Refers to the Hochelagans (Dawson) and hunter tribes of Canada (Ontario), comparing them with the bone cave men of Europe.

Peterborough Examiner.

Oct. 29, 1898.

Notices of some of the curios in the Victoria Museum, Peterborough, including a number of Indian relics found in the district.

Jan. 25, 1899.

List of contributions to the Victoria Museum, Peterborough, including some Indian relics.

Powell, Major, J W.

Abstract, etc., Anthropol. Society, Washington, 1881, p. 84.

Proprietary rights of women among the Wyandottes.

Rau, Charles.

Prehistoric Fishing (in Europe and America). Smithsonian Contributions to Knowledge.

P. 268, *et seq.* give extracts from Champlain, Sagard, Le Jeune, etc., on the modes of fishing, nets, etc., used by Hurons and Algonquins; also describes the 'marriage to the nets.'

St Marys Argus.

Oct. 18, 1900.

Notice of a slate relic found on the 14th con., West Zorra (Oxford Co.) by Louis Ray.

St. Marys Journal

Dec. (?), 1899.

Notice of a visit by L. D. Brown, of Granthurst, to a prehistoric Indian fortification on the farm of Mr. Jackson, 5th con., South(?) Dorchester. Description of the site. Reprinted in London (Daily) *Free Press*, Dec. 5, 1899. (Compare Archæol. Report, 1894 5, p. 38.)

Scadding, Rev Henry, D.D.

The Toronto Landing. A paper read before the Society of York Pioneers, Nov. 4, 1890. (Toronto, 1891). 8 pp.. Reprinted from *Canadiana* and the *Week*.

Discusses, at some length, the meaning of the Indian word 'Toronto'—'a place of meeting'—the word having been originally applied to the district between Lake Simcoe and Lake Huron (*i.e.*, the Georgian Bay portion) and also to Lake Simcoe itself (Charlevoix). The landing-place at the present city was designated 'Teiaiaagon,' a term also applied to the site of Port Hope.

Schoolcraft, Henry R.

Notes on the Iroquois (1846).

Has references to Ontario.

Schoolcraft, Henry R —Con.

History, Condition and Prospects of the Indians of the United States. 1851. vol. I, pp. 68, 102.

Contains references to bonepits in Beverly township, 12 miles from Dundas, found "about the year 1837."

Secord, L, M D.

Disease among the Iroquois, pages 190-194 in the Archæological Report for 1898, (Toronto, 1898.)

Dr. Secord is medical officer to the Six Nations Indians.

Simcoe Reformer.

Aug. 9, 1900.

An article describes an outing of the Norfolk Historical Society for the purpose of examining the spot on Black Creek near Port Dover, which it has been suggested may have been the winter quarters of Dollier de Casson and Galinee in 1669-70.

Souter, T W. Edwin

Ottawa Citizen, Feb. 22, 1899.

Brief abstract of paper on "The Archæology of Lake Deschenes" read before the Ottawa Field Naturalists' Club, Feb. 21.

The Ottawa Naturalist, March 1899. Vol. XII. No. 12, p 268.

Abstract (7 lines) of Mr. Souter's paper on "The Archæology of Lake Deschenes."

Archæology of Lake Deschenes, (Ottawa River). The Ottawa Naturalist, January, 1900. Vol. VIII., No. 10, pp. 225-238.

With 3 plates, (37 figures) of relics. The essay has notices of the flints and other implements of the aborigines of the Lake, their burial places (both communal and isolated), their fictile and textile work. A trail to the Gatineau, from the Lake, is also noticed.

Spencer J. W, A M., Ph D, F G S.

The Duration of Niagara Falls and the History of the Great Lakes. 2nd edition. New York, 1895.

Pp. 34, 44, 74, Ancient lake beaches used as trails by the aborigines, p. 45 the "Iroquois Beach" named after the aborigines who used its gravel ridges as trails, pp. 64, 65, used. by the Algonquins, of the ancient shore-line named after them, as trails.

Sulte, Benjamin

The War of the Iroquois, pages 124-151 in the Archæological Report for 1899. (Toronto, 1900.)

Translated from the French by Mrs. Mary E. Rose Holden.

Tasker, L H., M.A.

The U. E. L. Settlement at Long Point, Lake Erie. Vol. II. Ontario Historical Society Papers and Records. Toronto, 1900.

Notices (at p. 33) the wintering place of Galinee's party, (1669-70). The writer, on the information of J. H. Coyne, B. A., of St. Thomas, places this site on Black Creek, where it joins the River Lynn (near Port Dover). Has photogravure of the place.

Thompson, David.

Extract from his journal. Third report of the Ontario Bureau of Mines, 1893, p. 63.

Notice of the early Indian quarries of native copper at Point Mamainse, Lake Superior, the information about which Thompson received from Indians in 1798.

Toronto Evening News

Oct. 4, 1898.

Despatch dated 'Kingston, Oct. 4.' describes three skeletons and many relics found on lot 17, 1st con. of Pittsburg Township.

Toronto Evening Telegram.

Apr. 1, 1893.

Correspondence between Wm. Bell, teacher of the Mohawk school, Bay of Quinte, and the Rev. Dr. Stuart, 1796-1800, in regard to this school. Reproduced in Documentary History of Education, Upper Canada, vol. I. (Toronto, 1894), p. 37.

Toronto Globe.

June 18, 1898.

A despatch dated 'Deseronto, June 17,' gives an account of U. E. Loyalist excursion to the Mohawk reserve at Deseronto, with some account of these Indians.

Toronto Mail and Empire.

Nov. 20, 1897.

Notice of the discovery of a human face(?) turned to stone, on the Saugeen River, at Maple Hill, near Walkerton, Ont.

Sept. 12, 1898.

Despatch 'Ottawa, Sept. 11,' noticing the discovery of an Indian burial ground on an island in Lake Deschenes, Ottawa River. 17 skeletons were found (probably Algonquins), and a quantity of relics.

Toronto Daily Star.

Sept. 10, 1900.

'H. F. G.' notices the finding of the winter quarters of 1669-70 of Dollier de Casson and Galinee on Black Creek, near Port Dover. A letter from J. H. Coyne to C. C. James tells of this interesting find.

Trall, Mrs Catharine Parr

Pearls and Pebbles; or, Notes of an Old Naturalist, 241 pp. Toronto, 1894.

P. 62, the meaning of the Indian word Otonabee (River) 'flashing water running fast'; p. 67, Indian name of the Baltimore oriole, 'fire bird'; p. 78, scarlet tanager, 'war bird'; p. 79, grosbeak, 'cut throat'; p. 82, the Canada jay, 'Wis-ka-geen' or 'wis-ka-tjan,' (corrupted into 'whiskey-jack'; p. 129, 'wah-tap' (roots of the tamarac) and its preparation as thread for making birch-

Trail, Mrs. C. Parr—Con

bark canoes; pp. 179-186, under the chapter title, 'The Children of the Forest,' discusses the meanings of the Indian place names: Otonabee, Katchewanook, Ontario, Pemadash-da-kota (Rice Lake), Napanee; also some personal names and sobriquets; Indian morality, laws and religion; p. 196, Indian use of the Broom rape plant as a cure for cancer; pp. 214-215, Indian rice (*Zizania aquatica*) and method of harvesting it; pp. 219-223, under the chapter title, 'Indian grass,' discusses the aromatic native grass (*Hierochloa*) woven by the Indian women into baskets, mats, braids, etc.; pp. 232-234, under the chapter title, 'The Indian Moss-bag,' describes the construction and use of the moss-bag for infants.

Warren, Hon W. W.

The Ojibway totem-system. Minnesota Hist. Soc. Coll., V. 1885, chapt. ii, pp. 41-53.

An excellent account by the learned Anglojibway.

Whittlesey, Charles

The Ancient Miners of Lake Superior. *Canadian Journal* (first series), vol. i., pp. 106 and 132.

A general discussion of the subject, with more special reference to the antiquities on Ontonogon River (with 7 illustrations).

Ancient Mining on the Shores of Lake Superior. Smithsonian Contributions to Knowledge. 155, Washington, April, 1863.

With outline map of the ancient mine pits of Point Keweenaw, Mich., and 21 other illustrations (wood-cuts), including some from Ontario.

Willmott, Arthur B., M A., B Sc.

Seventh Report of the Ontario Bureau of Mines, (2nd Part) (Toronto, 1898.)

P. 187, mentions old Indian pictures on a cliff at Dog Lake, from which the name Missanabi is derived.

Wilson, Sir Daniel, LL.D

Caliban: the missing link.
London, 1873. 271 pp.

P. 102, difficulty experienced by a missionary among the Chippeways in getting the doctrines of the Christian belief interpreted into pagan notions; pp. 104-5, explanation, by an Indian chief on Lake Superior, of the difference between the white man's God and his own Manitou.

Wintemberg, W. J

A remarkable Indian pipe, in
The Reliquary and Illustrated
Archæologist, April, 1900.

This article describes the Thunder Bird pipe found near the village of Bright in Oxford county. (See also Archæological Report for 1898, p. 46.)

Indian Village Sites in the
counties of Oxford and Waterloo,
pages 83-92 in the
Archæological Report for
1899. (Toronto, 1900.)

Describes sites in the townships of
Blenheim (7), North Dumfries (1),
Waterloo (1), Wilmot (2), East Oxford (1).

Wolseley, Lord Garnet.

Narrative of the Red River
Expedition of 1870.

First published anonymously in *Flackwood's Magazine* for December, 1870, and January and February, 1871, and subsequently with the author's name as No. II in the series of *Travel, Adventure and Sport*.

At p. 279, describes an old squaw near Wendigo Lake, addicted to cannibalism.

Yarrow, H C

First Annual Report, Bureau
of Ethnology, Washington,
1881.

Has references (at p. 198) to Algonquins lighting fires upon the graves of their dead.

Young, Rev. Egerton R

Stories from Indian Wigwams
and Northern Campfires. n
d. London, Eng.

Describes the manners and customs of the Crees and Saulteaux of Keewatin, adjacent to Northwestern Ontario, observed during a missionary residence at Norway House.

ANNUAL
ARCHÆOLOGICAL REPORT

1901.

BEING PART OF

APPENDIX

TO THE REPORT OF THE

MINISTER OF EDUCATION

ONTARIO.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



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HON. RICHARD HARCOURT, M.A., K.C.,

Minister of Education.

Sir,—Herewith is presented the Archaeological Report for the year 1901.

The period that has elapsed since the presentation of our last statement has been a very busy one, and once more it is to be regretted that so little has been possible in the way of outside work.

A good deal of time had to be given to the exhibit of archaeological material shown at the Pan-American Exposition. This exhibit, although made without any competitive motive, was awarded the silver medal.

The number of specimens added to the museum during the past twelve months is not so large as I have frequently had to report, but in point of value the new material exceeds that of several former years.

Intelligent interest in archaeological and ethnological study is manifestly growing, if one may form an opinion from the large increase in correspondence, as well as from the number of visitors who come to the museum, not simply to pass through, but to spend considerable time in examining the contents of our cases.

I have the honor
to be yours respectfully,

DAVID BOYLE.

Toronto, Dec. 31. 1901.

ACCESSIONS TO THE MUSEUM.

- 22,130 Clay pot (imperfect), found under a rocky cliff on Muskoka Bay, near Severn Portage. Mr. T. M. Robinson, Gravenhurst.
- 22,131 Wooden pipe, made by the M'kosa Kaffirs, Cape Colony. Frederick Hamilton, M.A., Toronto.
- 22,132 Large steel snow knife, Eskimo, Mackenzie River district.
- 22,133 Hunting knife with ivory handle, finely finished blade, Mackenzie River district.
- 22,134-35 Two boring instruments with three drills, Eskimo, Mackenzie River district.
- 22,136-37 Two sledge toggles and lines.
- 22,138-40 Three tobacco pipes, mouth of Mackenzie River.
- 22,141 Crooked knife, ivory handle, found at mouth of Mackenzie River.
- 22,142 Short knife, carved handle.
- 22,143 Crooked knife, horn handle.
- 22,144 Woman's large knife, Eskimo.
- 22,145 Woman's small knife, Eskimo.
- 22,146 Spoon, fossil ivory, Eskimo.
- 22,147-52 Herring hooks, Eskimo.
- 22,153-58 Ivory fish hooks, Eskimo.
- 22,159-65 Bone fish hooks, Eskimo.
- 22,166 Small bear's head, used as charm on fishing boats, Eskimo.
- 22,167 Bone netting needle, Eskimo.
- 22,168-79 Bow and eleven arrows, with tightening pieces, Eskimo.
- 22,180 Small model of kayak, Eskimo.
- 22,181 Woman's shoes of seal and grampus skin, Eskimo.
- 22,182 Men's boots of deer and grampus skin.
- 22,183 Pair of woman's ear-rings, Eskimo.
- 22,184 Pair of men's stone labrets, Eskimo.
- 22,185 Woman's labrets (obsolete), Eskimo.
- 22,186 Man's labret, worn by well-to-do natives, Eskimo.
- 22,187 Model spear toggle-joint (for seals), Eskimo.
- 22,188 Spear for white grampus, Eskimo.
- 22,189 Flint scraper, Eskimo.
- 22,190 Iron scraper, Eskimo.
- 22,191 Flint arrowhead, Eskimo.
- 22,192 Flint spear head, Eskimo.
- 22,193 Girl's fur dress, Eskimo.
- 22,194 Walrus' tusk, from natives west of Mackenzie River, Eskimo.
- 22,195 Dressed caribou skin. Loucheaux Indians.
- 22,196-99 (4) Pairs of Loucheaux snowshoes.
- 22,200 Pair of gloves, Eskimo.
- 22,201 Ivory harness toggle, Eskimo.
- 22,202 Bone needle-case, Eskimo.

From 22,132 to 22,202 were procured from the Rev. C. E. Whittaker, Episcopalian Missionary to the Eskimo and other natives in the Mackenzie River district.

- 22,203 Birch bark torch, as used in Mississauga sugar camps. F. W. Waugh.
- 22,204 Zulu eating dish. C'unquaaun. F. Hamilton, M.A.
- 22,205 Plain stone axe, degraded to hammer use. E. D. Windsor, Clarksburg.
- 22,206 Small stone axe, plain, perfect. E. D. Windsor.
- 22,207 Stone axe, plain, imperfect, but good. E. D. Windsor.
- 22,208 Stone axe, thin slate. E. D. Windsor.
- 22,209 Piece of worked quartzite. E. D. Windsor.
- 22,210 Clay pipe, short stem, a little broken. E. D. Windsor.
- 22,211 Cast of gorget (porphyritic), Danby Tp., Ionia Co., Mich. Found by Norman Fox. C. V. Fuller, Grand Ledge.
- 22,212 Cast. Near Delaware, Ohio. Found by G. L. Perryman, Lansing, Mich. C. V. Fuller.
- 22,213 Cast. Section 7, Walton Township, Eaton Co., Mich. Edward Stevens. C. V. Fuller.
- 22,214 Cast. Ionia County, Mich. C. V. Fuller.
- 22,215 Cast. Windsor Township, Eaton County, Mich.
- 22,216 Cast. Section 3, Oneida Tp., Eaton Co., Mich. C. V. Fuller.
- 22,217 Cast. Clinton County, Mich. C. V. Fuller.
- 22,218 Cast. Eaton County, Mich. C. V. Fuller.
- 22,219 Loucheaux model of sled laden with fish. Mackenzie River mission. Rev. C. E. Whittaker.
- 22,220 Small knife, Eskimo " " "
- 22,221-23 Fish hooks. " " "
- 22,222 Is a combination of coarse jadeite, bone and iron.
- 22,224 A small ivory charm in the form of a bear's head, ornamented with small centered circles and used for attachment to fishing kavaks. Rev. C. E. Whittaker.
- 22,225 Red argillite, perforated. Crocodile Valley, Transvaal, South Africa. Lieut. G. E. Laidlaw.
- 22,226 Soapstone, two holes partly bored. Lieut. G. E. Laidlaw, South Africa.
- 22,227 Fragments of pottery, Transvaal, South Africa. Lieut. G. E. Laidlaw, South Africa.
- 22,228 Stone pipe, north shore Lake Superior. Chief John Monague, Christian Island.
- 22,229-31 Three assagais, Pilgrim's Rest, Lydenburg Mts., Transvaal, South Africa. Lieut. G. E. Laidlaw.
- 22,232-33 Wooden pillows (as used by a people exterminated by the Zulus), Crocodile River Valley. Lieut. G. E. Laidlaw.
- 22,234. Water pail of leather (no donor, or locality known).
- 22,235-36 Two brass wire bracelets. From a Kaffir village about 8 miles north of Pretoria.
- 22,237 Copper wire bracelet. From a Kaffir village about 8 miles north of Pretoria.
- 22,238 Iron wire armlet. Transvaal Colony. Mr. W. J. Morrison.

- 22,239 Clay pot with incised spiral pattern on the outside. Miss Josephine Keller, Vicksburg, Mississippi.
- 22,240 Arrow head, lot 17, con. 8, Pickering, Ont. Edward Gibson, per Rev. W. Adams, Claremont, Ont.
- 22,241 Small stone axe, found near Lake Opinicon, Frontenac County. J. Walter Wells, Belleville.
- 22,242 Skull of Indian, found on lot 5, con. 8, Clinton Township, Lincoln County (about 2 feet below the surface). It is estimated that 250 bodies were interred here. S. H. Moyer, Campden.
- 22,243 Thigh-bone, united after fracture, lot 5, con. 8, Clinton. S. H. Moyer, Campden.
- 22,244-45 Thigh-bones from same place. S. H. Moyer.
- 22,246-52 Snake dance costume, as used by the Moquis of Arizona, including waist cloth and sash woven in colored patterns, turtle rattle with hoof bangles, pair of leather leg bands ornamented with feathers, skin, and small gourd rattle. Mr. A. T. Tye, M.E., per Miss Tye, 276 Jarvis street, Toronto.
- 22,253 Clay pipe, Tiny Township. A. F. Hunter, Barrie. (Imitation by boys.)
- 22,254 Bone awl or needle, Kamloops, British Columbia. W. C. Perry, Winnipeg.
- 22,255 Fragment of copper pyrites and copper-stained bone, village site, Kamloops, British Columbia. W. C. Perry, Winnipeg.
- 22,256 Small jade cutting tool. W. C. Perry, Winnipeg.
- 22,257 Photograph of Zulu man. Dr. T. W. Beeman, Perth.
- 22,258 Photograph of two Zulu women. Dr. T. W. Beeman, Perth.
- 22,259 Photograph of two Zulu girls. Dr. T. W. Beeman, Perth.
- 22,260 Horn rattle, wooden handle, used in pagan dances on the Six Nation Reserve. Red Cloud, (a Cayuga.)
- 22,261 Turtle-shell rattle, painted, Iroquois pagan dances. Red Cloud.
- 22,662 Small turtle rattle (woman's, no handle). Red Cloud.
- 22,663-64 Dance knee-bands with bangles of pigs' hoofs and exploded brass cartridges. Red Cloud.
- 22,665 Drum made from a small iron-hooped barrel and painted with red, green, yellow, black, and white. Red Cloud.
- 22,266 Cayuga turtle rattle (Wm. Henry), Tuscarora Reserve.
- 22,267 Long head-dress of beaded cloth and feathers. Red Cloud.
- 22,268 Fur kilt or waist dress of fur. Tuscarora Reserve. Red Cloud.
- 22,269. Fur pouch with partridge bangles. Red Cloud.
- 22,270 Fur pouch with beaded shoulder straps. Red Cloud.
- 22,271 Small spherical gourd rattle with wooden handle, painted red. Tuscarora Reserve. Red Cloud.
- From 22,260 to 22,271 were the property of Red Cloud, a Cayuga, and worn by him on ceremonial occasions.

- 22,272 Object of red argillite $3\frac{5}{8}$ inches long, nearly $\frac{1}{4}$ thick, $1\frac{1}{4}$ inches wide at one end and tapering (all the taper being on one edge) to less than $\frac{1}{4}$ inch at the opposite end; perforated lengthwise with a hole about 2 mm. in diameter. Found in a grave with a number of others of similar form at Taylor's Point, Sandwich, Ont. H. R. Hatcher, Comber.
- 22,273 Hook cut from sheet copper and found by the late Col. T. Brock, Louth Township, Lincoln County. C. A. Case.
- 22,274 Flint knife, Dean's Mills, lot 5, con. 8, Clinton. C. A. Case.
- 22,275-81 Six flint arrows. Dean's Mills, lot 5, con. 8, Clinton. C. A. Case.
- 22,282 Bone bead. Dean's Mills, lot 5, con. 8, Clinton. C. A. Case.
- 22,283 Chip from stone axe. Dean's Mills, lot 5, con 8, Clinton. C. A. Case.
- 22,284 Roughly triangular, weathered stone, weathered at wide end.
- 22,285-86 Pendants, plummets or sinkers, and
- 22,287—Pendant or plummet made from columella of large uni-valve. (These three the notched at one end as if for suspension.) 22,284-87 from Chokoloskee Island or Key, Lee County, Florida, where they were ploughed up. From Mr. Clarence B. Moore, Philadelphia.
- 22,288 Life mask, Tommy Lane (Koyopkud), aged 50, Tribe Puyallup.
- 22,289 Life mask, Dave Dan (Ptduabsh), aged 35.
- 22,290 Life mask, Mary Leshi Borsatl, aged 40. Half Nisqually half Tenino.
- 22,291 Life mask, Lucy Leshi (daughter of 22,290).
- 22,292 Life mask, Louis Bob, aged 19. Tribe Puyallup.
- 22,293 Life mask, Louis Leshi (son of 22,290), aged 19.
- 22,294 Life mask, Jenny James, aged 26. Father Puyallup. mother half Yakima, and half Snohomin.
- 22,288, 22,294 from State of Washington.
- 22,295 Life mask, Charlie (Kakoititla), aged 28, Tribe Koskimo.
- 22,296 Life mask, Johnnie (Khaiuskana), aged 32, Newitte.
- 22,297 James (Khanias), brother of Johnnie, aged 16, Newitte.
- 22,298 Life mask, Lucy (wife of Charlie, 22,295), aged 30, Koskimo.
- 22,299 Life mask, Sam (Penaquoity), aged 35, Alert Bay.
- 22,301 Life mask, Ned, aged 35, Alert Bay.
- 22,301 Life mask, Nedaged, aged 35, Alert Bay.
- 22,302 Life mask, Alice, aged 27, Bella Coola.
- 22,303 Ann (sister of Alice), aged 24, Bella Coola.
- 22,295 to 22,303 from Vancouver Island, British Columbia.
- 22,288 to 22,303 by exchange, from Field Col. Mus., Chicago.
- 22,304 Similar to number 22,272, and found in the same grave. From Mrs. James Lawler, Toronto.

- 22,305 Bird amulet, imperfect, found in Methodist burying ground,
Jordan station, Lincoln County, Ont. A. J. Painter.
- 22,306-8 Skulls from ossuary, Dean's Mills, lot. 5, con. 8, Clinton
Township, Lincoln County. Dr. G. M. Bowman.
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- 22,309 Net carrying-bag. Lengua.
- 22,310-12 Net bags. Chamococco Brabo.
- 22,313 Knit cordage bag, striped. Chamococco Brabo.
- 22,314 Knit cordage bag, striped, Mataco.
- 22,315 Knit cordage bag, check design. Guano.
- 22,316 Knit cordage, striped. Chamococco Brabo.
- 22,318 Bag, bark and cordage. Chamococco Brabo.
- 22,319 Woman's belt, cordage. Toba.
- 22,320-21 Hanks of plaited fibre cordage. Sanapana
- 22,322-24 Bundles of rope. Chamococco Brabo.
- 22,325 Bridle of hair. Chavante.
- 22,326 Necklace of black seeds. Cadoca.
- 22,327 Rattles of half seeds. Guana.
- 22,328-9 Rattles of half seeds. Omiri.
- 22,330 Tin ornament crescent. Coroado.
- 22,331 Wooden ear-plug. Lengua.
- 22,332 Flute or whistle (small). Apiaca.
- 22,333 Shell ear pendants and beads. Caiugua.
- 22,334 Necklace. Lengua.
- 22,335 Necklace. Angayte.
- 22,336 Ear pendant, shells and feathers. Lengua.
- 22,337 Belt of bristles. Apiaca.
- 22,338 Necklace, beads and monkey bones. Guato.
- 22,339 Bone comb. Caiugua.
- 22,340 Necklace of beetle backs. Apiaca.
- 22,341 Ankle rattle of deer hoofs. Chamococco Brabo.
- 22,342 Rattling belt, cordage, deer hoofs. Guano.
- 22,343 Rattling belt, cordage, deer hoofs. Chamococco Brabo.
- 22,344 Necklace of cane, reed and beetle necks. Tupi.
- 22,345 Necklace of cane, reed and beetle necks. Caiugua.
- 22,346-7 Necklaces of cane and brown berries. Chamococco Brabo.
- 22,348 Necklace of cane and beetle necks.
- 22,349 Necklace of cane and berries. Cadoca.
- 22,350-79 Thirty arrows. Cuximanapana.
- 22,380-89 Ten arrows. Sanapana.
- 22,390-99 Ten arrows. Guano.
- 22,400-02 Bows (plain). Cuximanapana.
- 22,403 Wooden club. Angayte.
- 22,404 Wooden spear. Chevante.
- 22,405 Head ornament of feathers. Omiri.
- 22,406 Head ornaments of feathers. Guano.
- 22,407-08 Head ornaments of feathers. Mataco.
- 22,409-10 Head ornaments of feathers. Chamococco Brabo.

- 22,411-13 Feather arrows (insignia of warriors). Chamococco Brabo.
- 22,414 Feather belt. Angayte.
- 22,415 Feather arrow. Chamococco Brabo.
- 22,416 Ear ornament of grass and red feathers. Omiri.
- 22,417 Feather head-dress. Chamococco Brabo.
- 22,418-21 Insignia of chiefs. Chamococco Brabo.
- 22,422-23 Ear ornament, rolls of feathers. Chamococco Brabo.
- 22,424-25 Head-dresses of feathers. Caiugua.
- 22,426 Ear ornament of white feathers. Angayte.
- 22,427-31 Ear ornaments feathers. Chamococco Brabo.
- 22,432 Ear ornament. Sanapana.
- 22,433-34 Ear ornaments. Angayte.
- 22,435-37 Ear ornaments. Chamococco Brabo.
- 22,338 Ear ornament. Apiaca.
- 22,439 Ear ornament. Chamococco Brabo.
- 22,440 Ear ornament. Mataco.
- 22,441 Ear ornament. Chamococco Brabo.
- 22,442-48 Ear ornament. Omiri.
- 22,449-52 Ear ornaments. Guana.
- 22,453-59 Feather bracelets. Chamococco Brabo.
- 22,460-67 Feather head-dresses. Chamococco Brabo.
- 22,468-72 Waist bands of feathers.
- 22,473-76 Feather ornaments. Mataco.
- 22,477-83 Waist bands of emu feathers. Chamocco Brabo.
- 22,484-90 Net bags.
- 22,491-93 Bags netted. Chamococco Brabo.
- 22,494 Closely woven bag.
- 22,495 Ear ornament.
- 22,496 Ear ornament (rattles).
- 22,497 Hammock. Mataco.
- 22,498 Wooden ear plug.
- 22,499 Necklace of beads and femurs.
- 22,500 Necklace of overlapping shell discs.
- 22,501 Narrow strip of skin, with bristles, twisted.
- 22,502 Necklace of cordage, shell pendant (discs). Guarani.
- 22,503 Necklace of cordage.
- From 22,309 to 22,503 are from Paraguay, and were procured by exchange from the Field Col. Mus., Chicago.
- 22,504 Very roughly made small axe or chisel. Yellow Point Mound. Lot 18, con. 1, Louth Tp., Lincoln Co.
- 22,505 Unfinished pendant (?) of schist. Mound, lot 18, con. 1.
- 22,506-07 Roughly formed flints. These and 22,505 were found with human remains, mound, lot 18, con. 1, Louth Tp.
- 22,508 Piece of chert. Mound, lot 18, con. 1, Louth Tp.
- 22,509 Small core and three chips of flint. Mound, lot 18, con. 1.
- 22,510 Slightly grooved stone adze. Lot 2, con. 8, Blenheim Tp., Oxford Co. Robert Guthrie, per W. J. Wintemberg.

- 22,511 Unfinished "banner-stone" (half pecked, half polished and unbored). Lot 8, con. 13, Blenheim Tp. W. J. Wintenberg.
- 22,512 Cast of striped slate "ceremonial" stone, roughly round edgewise, one side slightly hollowed, the other somewhat convex. A hole through one end, with part of another at the opposite end. From collection of Mr. Rathbun. Drumbo, per W. J. Wintenberg.
- 22,513 Flexed leg-bones. Mound, lot 18, con. 1. Louth Tp., Lincoln Co.
- 22,514 Human cranium. Mound, lot 18, con. 1, Louth Tp., Lincoln Co.
- 22,515 Flat pebble "sinker." Mound, lot 18, con. 1, Louth Tp., Lincoln Co.
- 22,516 Flakes of black mica. Mound, lot 18, con. 1, Louth Tp., Lincoln Co.
- 22,517 String of small white cowries, (formerly used as currency), from Multan, India, collected by Col. S. H. P. Graves, per Mrs. J. H. Thompson, Toronto.
- 22,518 Stone pipe head. Lot 28, con. 3, West York. Bracondale. D. G. McNab.
- 22,519 A piece of limestone and chert, the former water-worn so as to resemble roughly an animal's head. As this specimen was found associated with Indian graves on Catfish Island, Hay Bay, Prince Edward County, it was possibly regarded by the Indians in some respectful way. Judge E. Merrill, Picton.
- 22,520 Stone pipe, Walker farm, Brantford Township, Brant County, J. S. Heath.
- 22,521 Small red clay pot, rudely formed and rudely ornamented (in black), recently made by the Mississauga Indians near Sault Ste. Marie, under the direction of Mr. L. O. Armstrong.
- 22,521½ Small red clay pot, recently made by the Mississauga Indians, near Sault Ste. Marie, under the direction of Mr. L. O. Armstrong.
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- 22,522 Navajo loom and tools, complete.
- 22,523 Pomo basket for grinding corn.
- 22,524 Pomo food basket from Northern California.
- 22,525 Pomo cradle from Northern California.
- 22,526 Pima cradle. Phoenix, Arizona.
- 22,538 Pima food bowl. Phoenix, Arizona.
- 22,531-33 Pima small bowls. Phoenix, Arizona.
- 22,534-36 Pima ollas. Phoenix, Arizona.
- 22,537 Pima bowl with animal figures. Phoenix, Arizona.
- 22,538 Pima food bowl. Phoenix, Arizona.
- 22,539 Pima olla. Phoenix, Arizona.
- 22,540 Apache Yuma (food bowl).
- 22,541-42 Food bowls. San Carlos, Apache.
- 22,543 Food bowl. Tanto, Apache.

- 22,544 Food bowl. San Carlos, Apache.
- 22,545 Food bowl. Miscallera, Apache.
- 22,546 Supai cradle.
- 22,547 Cahulilla food tray. South California.
- 22,548-49 Hoopa caps. North California.
- 22,550 Hoopa food bowl. North California.
- 22,551 Moqui (proper name "Hopi Katzina") food bowl.
- 22,552 Moqui (proper name "Walpi Misa Hopi") plaque.
- 22,534-54 Food trays. Pitt River, North California.
- 22,555 Water bottle. Pitt River, North California.
- 22,556 Hoopa cradle. Humboldt County, California.
- 22,557 Pima olla (from Arizona, red).
- 22,558-60 3 Zuni ollas. N. W. New Mexico.
- 22,561-68 8 Acoma ollas, N.W. New Mexico.
- 22,569-81 Lot of pieces, various localities.
- 22,582-97 Lot of 16 small pieces, various localities.
- 22,598-605 Prehistoric pottery (18 pieces), found near Baker's Butte, Arizona.
- 22,606-67 Metates, near Phoenix, Arizona.
- 22,608-13 Five large circular stones (perforated), near Phoenix, Arizona.
- 22,612 Oval-shaped perforated stone, near Phoenix, Arizona.
- 22,614 Oval-shaped stone of tufa, with projection at one end, partly bored in the middle. Near Phoenix, Arizona.
- 22,615-16 Two small stone paint pots. Near Phoenix, Arizona.
- 22,617-26 Grooved stone axes. Near Phoenix, Arizona.
- 22,627-30 Tablets of slate, from $2\frac{3}{4}$ by $3\frac{3}{4}$ to 5 by 7 inches, with incised border lines. Near Phoenix, Arizona.
- 22,631-33 Tiles hung as charms over Moqui fire places. Near Phoenix, Arizona.
- 22,634 Steatite tablet, 2 by 4 inches, $\frac{3}{4}$ of an inch thick, hollow groove across middle, one side pitted with small holes. Near Phoenix, Arizona.
- 22,635-41 Rough representations of the human form, mostly in tufa. Near Phoenix, Arizona.
- 22,642-43 Turtle-like forms in tufa. Near Phoenix, Arizona.
- 22,644-46 Rough, uncertain, animal forms in tufa. Near Phoenix, Arizona.
- 22,647-48 Turtle-like forms in tufa, hollowed or pitted in the back. Near Phoenix, Arizona.
- 22,647-48 Turtle-like forms in tufa, hollowed or pitted in the back.
- 22,649-61 Twelve pendants or sinkers, of tufa.
- 22,662-63 Stone pendants or sinkers.
- 22,644 Small objects of tufa. Had originally eight arms from one centre.
- 22,665 Small rough human form in clay.
- 22,666 Small lama-like head in clay.
- 22,667 Small animal form (nondescript) in clay.

- 22,668 Small animal form (quadruped) in clay, head off.
22,669 Small roughly cylindrical clay object.
22,670 Pendant or sinker.
22,671 Rough representation of animal form.
22,672 Small cylinder of hematite. $1\frac{1}{4}$ inches long, $\frac{1}{2}$ inch in diameter.
22,673-76 Shells (salt water), cardium sp.(?)
22,677 Small tool of flint, sharply veined at one end.
22,678 Small slate pendant, incised.
22,679 Small imperfect object of schistose slate.
22,680 Small slate tablet.
22,681-82 Thin slate discs, perforated in centre, $1\frac{7}{8}$ inches in diameter.
22,683-96 Spindle-whorls.
22,689 Shell (salt-water) cardium. (?)
22,698-99 Rough representations of animal forms in tufa.
22,700 Ninety-four arrowheads, etc.
22,701 Miscellaneous fragmentary specimens of shell work.
22,702 Miscellaneous fragmentary specimens of obsidian.
22,703 An amygdaloidal sandstone tube.
From 22,647 to 22,703 are from Salt R. Valley, Arizona, and were found by J. W. Benham of Phoenix.
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- 22,704 Large and unusually formed celt-like tool $12\frac{1}{2}$ inches long, $2\frac{1}{4}$ inches thick in the middle, tapering to a pointed ball at one end and a cutting edge at the other. One side looks as if the beginning of a hollow had been made for a gouge. Giver unknown—specimen left in Museum without any clue.
22,705 Musical instrument, consisting of ten iron tongues of various lengths, fastened on a small board, $4\frac{1}{2}$ inches by $6\frac{1}{2}$ inches, West Africa.
22,706 Musical instrument, consisting of eight iron tongues of various lengths, two tongues missing, on small carved board, 4 in. by 7 in. West Central Africa.
22,707 Musical instrument, consisting of nine iron tongues, one missing, on carved board.
22,708-9 Large wooden spoons, made by Mission Station boys. Cisamba, Bihe. Angola, W.C.Africa.
22,708-9 Large wooden spoons, made by Mission Station boys.
22,710 Wooden female image, eleven inches high, Cisamba.
22,711 Brown grass-cloth head-dress. Luba Country, W. C. Africa.
22,712 Undyed grass-cloth, Lovali Country, W. C. Africa.
22,713 Rawhide belt (four strands twisted), Luba Country, W. C. Africa.
22,714 Wooden club, with carved spherical head, Bihe, W. C. Africa.

- 22,715 Wooden club, with pear-shaped head, Bihe, W. C. Africa.
- 22,716 Water-gourd or beer calabash, with burnt triangular, and other patterns. Benguela, S. W. Africa.
- 22,22,717 Antelope horn, used by the natives for various purposes. Bailunda, W. C. Africa.
- 22,718 Antelope horn, filled with bones, etc., as a charm against evil spirits. Bihe, W. C. Africa.
- 22,719 Large native basket. Bailunda (Angola).
- 22,720 Cap made of string (Fetish priest)—Ciyumka. Bihe. Angola.
- 22,721-23 Bamboo plates or plaques. Angola.
- 22,724 Parcel of salt, used as a medium of exchange. Bailundu.
- 22,725 Whisk of horse-hair, with handle of alligator skin, the hollow having two small antelope horns as charms. Fetish priest.
- 22,726 Iron spear, bamboo handle. Garanganzi, Barotse Valley.
- 22,727 Iron spear, with chisel-pointed cutting tool at opposite ends, fastened with native copper wire. Ulu.
- 22,728 Iron spear, bamboo handle, head bound with leather thongs. Garanganzi.
- 22,729 Iron spear, wooden handle, partly leather-covered, and ornamented with corase fur. Garenganzi.
- 22,730-37 Eight plain arrows. Angola. W. C. Africa.
- 22,738 Small native clay pot. Fetish priest.
- 22,739 Fetish hoe. Priest.
- 22,740-47 Native knives. Various parts of W. C. Africa.
- 22,748 Iron punch. Bihe. Angola.
- 22,749 Feather head-dress (chief's). Bailundu. Angola.
- 22,750-54 Native belts. Various parts of W. C. Africa.
- 22,755-56 Native baskets (large one from Luba Country) small one from Bailundu.)
- 22,757 Axe. Bihe.
- 22,758 Horn of water-buck. Bihe. Angola.
- From 22,705 to 22,758 are the gift of Mrs. John Currie, Toronto, and were collected by her son, the Rev. W. T. Currie, of Bihe, Bailunda, Angola. West Central Africa.
- 22,759 Leaf-shaped flint (one of 150) found in a cutting for gas pipe on Devine street, Sarnia. Albert Wheeler, Sarnia.
- 22,760 Rough ball. Found 3 feet 6 inches below surface, Devine street, Sarnia. The ball was lying near a heap of leaf-shaped flints, numbering at least 150. A. Wheeler, Sarnia.
- 22,761 Beginning of a Navajo Indian basket to show how the work is done. Arizona. J. W. Benham.
- 22,762 "Cat-tail" used as core for Pima. Arizona.
- 22,763 Coil of split cat-tail, used in Navajo basketry.
- 22,764 "Devil's claws," (*Martynia proboscidea*), a large seed pod, used to form the dark portions of the pattern, in Navajo basketry. J. W. Benham.
- 22,765 Turtle-like form in tufa. J. W. Benham, Phoenix, Arizona..

- 22,766 Roughly cylindrical form in tufa. $2\frac{1}{2}$ by 2 inches. J. W. B.
- 22,767 Large water-worn stone, having a resemblance to a grooved axe. Found near Peoria, Ill., and presented by Mr. Alonzo Wookey, Peoria. (The dimensions of this stone are 12 inches long, $8\frac{1}{2}$ inches wide, and 5 inches thick.)
- 22,768 Snuff-box, made from bamboo, richly carved. Bihe. Angola, S. Africa. Mrs. John Currie, Toronto.
- 22,769 Small, double-edged axe-like object of Huronian slate, quadrangular in cross section, each side slightly hollowed length-wise. 5 inches long, about $1\frac{1}{8}$ inches wide, and $\frac{3}{4}$ inches thick in the middle, where it is perforated, with a hole tapering from $\frac{3}{8}$ of an inch to 7-16. Mr. Fish, Springfield, Toronto Township. Per Miss Switzer.
- 22,770 White beaded mocassins, with red and blue pattern. Worn by Red Cloud, a Cayuga.
- 22,771 Spear head, Grand River Valley, opposite Bow Park Farm, Brant County. F. W. Waugh.
- 22,772-73 Leaf-shaped spear heads, Nipissing. F. W. Waugh.
- 22,774-75 Flints, near Lake Manitou, Manitoulin Island. F. W. Waugh.
- 22,776 Drill, Sealey Farm, Brantford Tp., Brant County. F. W. Waugh.
- 22,777 Iron drill, Sealey Farm, Brant County. F. W. Waugh.
- 22,778 Flint Knife, Grand River, above Brantford. F. W. Waugh.
- 22,779 Largest square-mouthed pipe yet found. Walker farm, Brantford Tp. F. W. Waugh.
- 22,780 Perfect clay pipe. Sealey Farm. F. W. Waugh.
- 22,781 Maple sugar moulds. Manitoulin Island, east end. Ojibwa (Mississauga.) F. W. Waugh.
- 22,782 Indian yoke for carrying sap. Manitoulin Island, east end. (Mississauga.) F. W. Waugh.
- 22,783 Small celt, Sealey Farm, Brant County. F. W. Waugh.
- 22,784-89 Flints, surface finds in N. Brantford Township. F. W. Waugh.
- 22,790-95 Spear heads. opposite Bow Park Farm, Brantford Township. F. W. Waugh.
- 22,796 Small scraper. Sealey Farm, Brant County. F. W. Waugh.
- 22,797-810 Fourteen flints. Sealey Farm, Brant County. F. W. Waugh.
- 22,811-12 Horn pins. Sealey Farm, Brant County. F. W. Waugh.
- 22,813-14 Two thigh bones, from ossuary, lot 5, con. 8, Clinton Township, Lincoln County. T. W. Moyer, Campden.
- 22,815 Femur, upper third much bent, perhaps the result of a fracture. T. W. Moyer, Campden.
- 22,816 Unfinished gorget. Sealey Farm, Brant County. F. W. Waugh.
- 22,817-20 Unburnt clay pots. Arizona. J. W. Benham, Phoenix.
- 22,821-22 Pieces of clay used in making Zuni pottery in Arizona. J. W. Benham, Phoenix.

- 22,823 Teeth of small animal used as a charm and carried on the person. Basutoland, Africa.
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- 22,824-40 Seventeen stone discs. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,841 Two naturally perforated pebbles, two smoothed circular pebbles. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,842 Fragment of clay pipe bowl, with parallel lines round it. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,643 Fragment of clay pipe bowl, with human mask. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,844 Hammer stone. Lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,845 Degraded celt. Lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,846 Partly or roughly grooved pebble. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,847 Oval smoothing stone. Lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,848-86 Thirty-nine pottery discs. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,887 Moulded bead of clay, with finger nail markings. Village site 23, lot 12, con. 1. A. Ferguson.
- 22,888 Human masked clay pipe bowl. Village site 3, lot 5, con. 5, Bexley. Wm. Irwin.
- 22,889 Unbored bead, made from a small pebble. Village site 3, lot 5, con. 5, Bexley. Wm. Irwin.
- 22,890-2 Small perforated soapstone beads. Village site 3, lot 5, con. 5, Bexley. Wm. Irwin.
- 22,893 Bone awl. Lot 5, con. 5, Bexley. Wm. Irwin.
- 22,894 Stone pick-pointed tool, from Jas. McGirr, Bolsover. Found by Wm. Freeland, near the Portage Road.
- 22,895 Stone scraping tool, roughly resembling a draw knife blade. S. Truman, lot 22, con. 8, Eldon Tp., site 9.
- 22,896 Long knife or lance head of quartzite. Lot 1, con. 6, Carden, north bank of Talbot River, M. Byrnes.
- 22,897-900 Four rough celts. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,901 Circular hammer-stone. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,902 Circular pebble, used as smoothing stone. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,903-8 Pottery. Village site 23. J. H. Carnegie. Indian Point, Balsam Lake, Bexley.
- 22,909 Bead from bird's wing-bone. J. H. Carnegie. Indian Point, Balsam Lake, Bexley.
- 22,910 Charred corn and what appears to be a charred acorn. (Neil Clarke.) Village site 23, lot 12, con. 1, Fenelon Tp.

- 22,911-13 Clay pipe bowls. (Neil Clarke.) Village site 23, lot 12, con. 1, Fenelon Tp.
- 22,914-15 Clay pipe stems, one plain and one representing a snake. (Neil Clarke.) Village site 23, lot 12, con. 1, Fenelon Tp.
- 22,916 Small perforated spiral shell. Village site 23, lot 12, con. 1, Fenelon Tp.
- 22,917 Sea shell (edible mussel). Village site 23, lot 12, con. 1, Fenelon Tp.
- 22,918 Shell columella, tropical. Village site 23, lot 12, con. 1, Fenelon Tp.
- 22,919 Beaver's tooth, may have been used as a chisel. Village site 23, lot 12, con. 1, Fenelon Tp.
- 22,921 Bear's tooth. Village site 23, lot 12, con. 1, Fenelon Tp. Neil Clarke.
- 22,922 Perforated metatarsal bone (deer). Village site 23, lot 12, con. 1, Fenelon Tp. Neil Clarke.
- 22,923 Metatarsal bone rubbed down on two sides. Village site 23, lot 12, con. 1, Fenelon Tp. Neil Clarke.
- 22,924-25 Bone beads. Village site 23, lot 12, con. 1, Fenelon Tp. Neil Clarke.
- 22,926-28 Bone needles, small and neatly made. Village site 23, lot 12, con. 1, Fenelon Tp. Neil Clarke.
- 22,929-30 Portions of eyed needles. Village site 23, lot 12, con. 1, Fenelon Tp. Neil Clarke.
- 22,931-36 Bone awls. Village site 23, lot 12, con. 1, Fenelon Tp. (Neil Clarke.)
- 22,937-49 Fragments of pottery representing lip decoration, finger-nail markings, and boring near a fracture for repairing purposes. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,950 Clay pipe bowl. Village site 24, lot 23, con. 1, Fenelon Tp. A. Ferguson.
- 22,951 Metatarsal bone, rubbed down on two sides. Village site 24, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,952 Bone bead. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,953-59 Pottery disc. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,960-69 Bone awls. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
- 22,970 Unio shell, through which there seems to have been broken an oblong hole. Village site 24, lot 23, con. 1, Fenelon Tp. A. Ferguson.
- 22,971 Fragment of cup-shaped pipe. Village site 24, lot 23, con. 1, Fenelon Tp. A. Ferguson.
- 22,972 Small ball of burnt clay. Village site 24, lot 23, con. 1, Fenelon Tp. A. Ferguson.
- 22,973 Small roughly made celt. Lot 3, North Portage Road, Bexley Tp. John Black.

- 22,974 Gun flint. West Bay, Balsam Lake, Bexley Tp.
22,975-79 Bones showing ends cut off. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,980 Bone skin dresser. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,981-85. Bone awls. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,986-87 Metatarsal bones, rubbed down on two sides. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,988-89 Deer horn tips. Village sites 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,990-91 Bone heads. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,992-93 Fragment of bone. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,994-96 Bear's teeth. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,997 Beaver's teeth. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,998-99 Bone and horn socketed implements. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
23,000 Half of bone needle. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
23,001 Bone point. Village site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
23,002-14 Thirteen pieces of pottery.
22,015 Mealing stone. Site 23, lot 12, con. 1, Fenelon Tp. A. Ferguson.
22,016 Mealing stone. Site 23, lot 12, con. 1, Fenelon Tp. G. E. Laidlaw.
22,017 Mealing stone. Site 27, Birch Point, South Bay, Balsam Lake. A. Ferguson.
23,018 Gorget of Huronian slate. Ward's Farm, Bexley P.O. Presented by Mrs. R. Campbell, Kirkfield, Ontario.
23,019 Bear's tooth, worked. Site 8, head of Portage Road, Block E, Bexley. J. W. Laidlaw.
23,020 Arrowheads. Site 8, head of Portage Road, block E, Bexley. J. W. Laidlaw.
23,021-26 Scrapers. Site 8, head of Portage Road, Block E, Bexley. J. W. Laidlaw.
23,027 Perforated bone needle, $2\frac{1}{2}$ inches long. Site 8, head of Portage Road. J. W. Laidlaw.
23,028 Small, oval, well-made scraper. Neil Sinclair's Farm, South Bay, Balsam Lake, Fenelon Tp. J. W. Laidlaw.
23,029 Large leaf-shaped black flint knife. Neil Sinclair's Farm, South Bay, Balsam Lake, Fenelon Tp. J. W. Laidlaw.
23,824 to 23,029 per Lt. George E. Laidlaw, Victoria Road.
-

- 23,030 Pair of coarse fur leggings. Eskimo.
 - 23,031 Pair of deerskin shoes with hair on. Eskimo.
 - 23,032 Pair of undressed sealskin mitts. Eskimo.
 - 23,033 Pair of deerskin shoes. Eskimo.
 - 23,034 Pair of sealskin boots. Eskimo.
 - 23,035 Pair of long leggings. Eskimo.
 - 23,036 Sealskin bag. Eskimo.
 - 23,037 Skin and line with bone toggles and bone handle, the skin
for inflation. Greenland.
 - 23,038 Whaleline.
 - 23,039 Hooded skin coat with bone buttons and ornaments.
Eskimo.
 - 23,040 Pair of child's legging boots. Lapland Eskimo.
 - 23,041 Pair of child's small ornamented white and red leather
shoes. Eskimo.
 - 23,042-44 Three pairs untanned high moccasins. Eskimo.
 - 23,045 Net. Eskimo.
 - 23,046 Pair of low red leather moccasins. Eskimo.
 - 23,047 Pouch of monkey skin. Guiana.
 - 23,048 Bone mouthpiece for inflating skin float. Eskimo.
- 23,030 to 23,048 from Field Col. Mus., by exchange.

- 23,049 Stone pipe, Huronian slate, representing a raven with
beak pointing to the feet. Lot 18, con. 13, Reach Tp., On-
tario County. Mr. Charles Rennie, Seagrave, per G. E.
Laidlaw.
- 23,050 Stone pipe, Huronian slate, representing an owl. Lot 18,
con. 15, Tiny Tp. Herbert G. Glaspell, per E. W. Glaspell
and Geo. E. Laidlaw.
- 23,051 Iron tomahawk, reduced in size by Indian method. Lot
15, con. 8, Eldon. A. Ferguson, per G. E. Laidlaw.
- 23,052 Piece of leaf thatching, from West African kraal. Miss
Eliz. J. Letson, Buffalo.
- 23,053-5 Three obsidian arrow points. Lincoln County, South Da-
kota. James Boyle, Sarnia.
- 23,056 Mealing stone. Bexley Tp. Lieut. Geo. E. Laidlaw.
- 23,057 Mealing stone. Balsam Lake. Lieut. Geo. E. Laidlaw.
- 23,058 Mealing stone. Bexley Tp. Lieut. Geo. E. Laidlaw.
- 23,059 Mealing stone. Bexley Tp. Lieut. Geo. E. Laidlaw.
- 23,060-62 Mealing stones. Balsam Lake. Lieut. Geo. E. Laidlaw.
- 23,063 Quern or hand mill. Shetland Islands. Thos. Williamson,
Toronto.
- 23,064-67 Flint scrapers. Sealey Farm, Brantford Tp. F. W.
Vaugh.
- 23,068-69 Serrated edged scrapers. Sealey Farm, Brantford Tp.
F. W. Vaugh.
- 23,070-82 Small triangular arrowheads. Sealey Farm, Brantford
Tp. F. W. Vaugh.

- 23,083-84 Barbed arrowheads. Sealey Farm, Brantford Tp. F. W. Waugh.
- 23085 Small, three-armed flint, perhaps a drill. Sealey Farm, Brantford Tp. F. W. Waugh.
- 23,086 Small, double-barbed arrow. Sealey Farm, Brantford Tp. F. W. Waugh.
- 23,087 Birch bark canoe (2 fathom), made by an Indian named Quill. White Bear Lake, between Lake Temiscaming and Lake Temagami.
- 23,088 Blue print (four views) of large kneeling human figure (ten inches high), stone pipe. Mound, Tennessee River. M. A. Kirby, Florence, Ala.
- 23,089 Stone pestle. Dr. T. E. Craig, Manchester, Indiana.

NOTES.

The specimen represented by fig. 1 (22,511) is an extremely interesting one, showing, as it does, several stages in the progress of



Fig. 1. (22,511) $\frac{1}{2}$ diameter.

making what we call a "banner stone" of the butterfly type, from the rough. In general outline, it is tolerably symmetrical, and if finished would probably be almost perfectly so, as we generally find to be the case with specimens of this kind. Along the rounded edges we can still observe traces of the flaking, or chipping process, by means of which the stone was brought into approximate shape, and while one-half of the whole surface exemplifies the succeeding pecking process, the other half has been polished enough to remove this roughness. The light lines shown on this portion of the cut are scratches, perhaps made by the plough. Not even a beginning has been made in the boring of the hole. It would not be easy to find another specimen of this kind to illustrate so well the steps taken by the old workman, in his rude way, for the purpose of reducing a piece of shapeless slate to form and symmetry, with an ultimate object in view, which, up to the present time, remains inexplicable.

This instructive specimen is presented by Mr. W. J. Wintenberg, and was found on lot 8, concession 13, in the Township of Blenheim.

In some respects this stone pipe-head (fig. 2) differs from anything of the kind in our cases. It is of a light gray limestone,

and is neatly made. The row of small holes or pits round the base are unusual. This pipe was found on lot 28, concession 3, west half, of York Township, quite near to Toronto, and was presented to the Museum by Mr. Donald G. McNab of Bracondale.

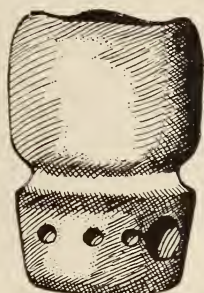


Fig. 2. (22,518) $\frac{3}{8}$ diameter.

The trained eye will at once perceive that the clay vessel represented by fig. 3 is not of northern origin. East of the Mississippi and the great lakes, and north of the Ohio, it is difficult to find incised, ornamental lines in curved form, on pottery. In Ontario, at any rate, all decorative markings consist of dots, slight elevations on the surface, produced by pressure of a blunted point from the

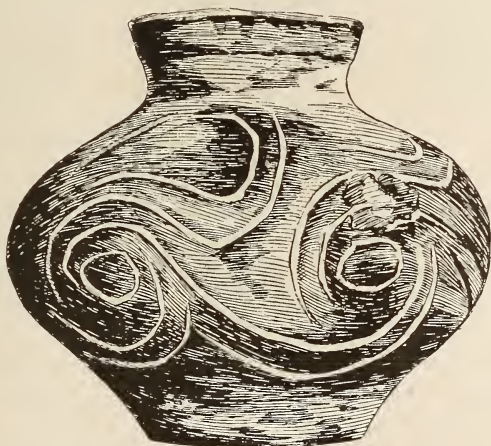


Fig. 3. (22,239).

opposite side, small circles made with the end of a reed or other tube, and straight lines, arranged either in parallels or to form triangular patterns.

Fig. 3 is also flat-bottomed, and in this respect differs from all Canadian pots, and from most others found in northeastern America.

The method of working is shown by means of this vessel, as it is clear that the body and the lip are the result of separate mouldings, the luted edge of the latter having been left in a somewhat rough condition.

For the excellent piece of pottery here figured we are indebted to Miss Josephine Keller of Vicksburg, Miss., near which city it was found.

A philanthropic and commercial attempt has recently been made by Mr. L. O. Armstrong, Colonization Agent of the Canadian Pacific Railway, for the purpose of inducing the Ojibwas of Algoma (in what is claimed to be the Land of Hiawatha) to revive their ancient operative and artistic skill in the making of such objects as may be sold to tourists and others who desire samples of Indian workmanship. In other parts of the continent the natives reap considerable profit from the sale of pottery, basketry, woven goods, carvings in stone, ivory and wood, and from the production of axe-handles, toboggans, snowshoes and bead-work.



Fig. 4. (22,521) $\frac{1}{2}$ diameter.



Fig. 5. (22,521 $\frac{1}{2}$) $\frac{1}{2}$ diameter.

Mr. Armstrong's project is a laudable one, and all friends of the ancient race will wish it success. Pottery seems to have struck him as a desirable class of work, and one in which the people would probably excel, and it would appear that a considerable quantity of this kind of ware was turned out by the people under his guidance last summer. The cuts—figures 4 and 5—illustrate what are said to be two of the most inferior vessels made, all the better ones having met with a better market. The larger vessel represented here is four inches high.

In the digging of a house-foundation last spring, at Taylor's Point, near Sandwich, Ontario, the workmen came upon an Indian grave, in which were the remains of several Indians. Round the neck of one were some 30 or more objects of catlinite similar to those illustrated by Fig. 6 (22,272 and 22,304), Master H. R. Hatcher, to whom we are indebted for the information respecting this find, as well as directly and indirectly for all that has reached us from the grave, states that, as far as he could learn, the specimens in question seemed to have formed a sort of necklace in connection with one of the skeletons. The beads (if such they were) varied considerably in length, if we regard the two in our possession as average samples, the longer one being almost five inches long, while the other

is only a little over three and five-eighth inches. In thickness both are nearly alike—slightly less than a quarter of an inch. The wide end of the shorter specimen is exactly an inch and an eighth across, while the corresponding end of the other measures barely an inch. Each is bored truly from end to end, the holes not being more than one-sixteenth of an inch in diameter. The smaller specimen is dull

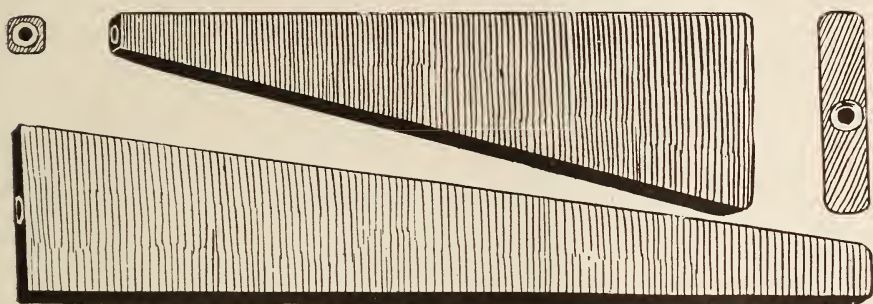


Fig. 6. (22,272 and 22,304).

in color when compared with the larger one, the latter having the bright red that is so characteristic of catlinite.

It is extremely difficult to meet with an absolutely perfect clay pipe, but quite recently we have received one, Fig. 7 (22,780), from Mr. F. W. Waugh, who found it on the Sealey farm, Brantford



Fig. 7. (22,780), about $\frac{3}{8}$ diameter.

Township, a farm from which we have come into possession of so many fine specimens. Not only is this pipe in perfect condition, but it is considerably larger than most of its class, the bowl measuring an inch and five-eighths across the mouth, and the stem being three inches long.

The horizontal depressions on the upper and lower bands are unusual, but the other markings are of the favorite pattern to which

reference is made by Mr. F. W. Waugh in his paper on the decoration of pottery.

OSSUARY IN CLINTON TOWNSHIP, LINCOLN COUNTY.

On receiving information, near the end of last May, from Messrs. T. W. Moyer of Campden, and A. J. Painter of Jordan Station, that an ossuary had been discovered near Dean's Mills, on lot 5, concession 6, Clinton, a visit was paid to the place within a few days.

Burial places of the kind in question are usually on high



Fig. 8. (22,242).



Fig. 9. (22,242).

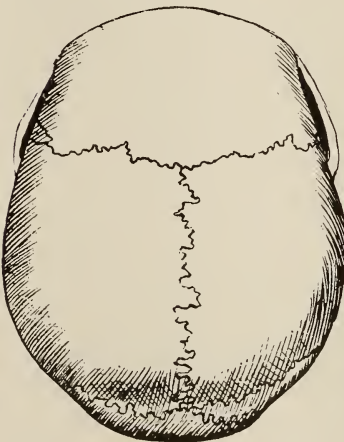


Fig. 10. (22,242).

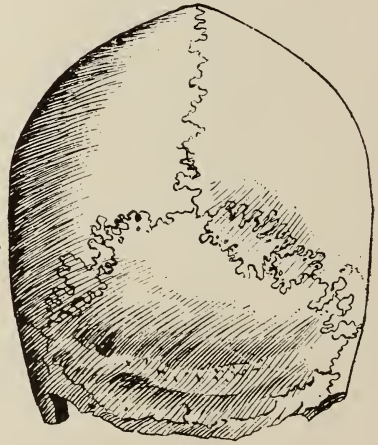


Fig. 11. (22,242).

ground, but this one is on a low, level field, within about three hundred yards north of Mud Creek, which flows into Twenty Mile Creek only some five hundred yards farther east. High ground was evidently not thought desirable, for a little to the west of the ossuary the land rises several feet above the level of the ground here, but this was perhaps not perceptible when the land was in bush.

Before the plough revealed the presence of the grave, there was not even a depression to suggest the possibility of so many human bones lying there, and so near to the surface, for they were covered by scarcely more than six inches of earth. Mr. Painter, to whom I am indebted for these particulars, states that the bones "were lying irregularly, and so closely, as to show they were never put there with the flesh on them." The pit was circular, about fifteen feet in diameter, and was estimated to contain at least two hundred and fifty skeletons. This is only a guess, based on statements made by those who took part in the wild resurrection mania, that seemed to take possession of the neighbors when it became known that an Indian grave had been discovered.

Mr. Moyer of Campden informed me that he saw fully thirty vehicles of various kinds tied up along the fence of the field where the grave was, and that as many as seventy persons were engaged in digging at one time. Unless those who thus labored did so hoping to find relics, it is not easy to understand why there should have been so much excitement; but, in any event, the result was deplorable. What should have proved an excellent opportunity to examine carefully an undisturbed ossuary, in a part of the country where such places of burial are rare, has been lost, and all that is left is a few skulls, most of which are held by those who procured them in the scramble. From Mr. T. W. Moyer, a very good specimen has found its way to the Museum, and three others are the gift of Dr. G. M. Bowman of Jordan. The one from Mr. Moyer, figs. 8 to 11, has several wormian bones on the line of the occipital suture, and one of those presented by Dr. Bowman is similarly, but less numerously marked.

No relics of any kind were found associated with the bones, but in various parts of the field there are traces of camping sites, on which a few flints, bone beads, broken pottery and some imperfect bone awls have been found. Some specimens of these were collected by Mr. C. A. Case of St. Catharines, and presented by him to us.

The femur, of which two views are shown, was found in the ossuary. The unusual degree of curve is remarkable. What seems to be the oblique line of a fracture might account in some measure for the curvature if the break had occurred in childhood, but some physicians regard the apparent place of union as merely an evidence of muscle attachment.

This specimen, with two other femurs, was taken from the ossuary by Mr. Moyer.

From the shallowness of the ashes that mark the old fire-places, Mr. Painter is of the opinion that the place had been occupied as a camping-ground for only a short time.

The only other example known to me of an ossuary occupying such low-lying land was in the Township of Bertie, Welland County, to which reference was made in a former report, and it is somewhat of a coincidence that the only mounds we have any knowledge

of in the Niagara Peninsula are within a few miles of each burying place—on the Lake Ontario side, about seven miles apart, and on the Lake Erie side, some nine or ten. With respect to this circumstance we may wonder whether the ossuaries and mounds are of the same date, and connected with one people, or are the work of different peoples, each of which occupied the ground at different times, or held distinct portions of it contemporaneously. When we remember that for a considerable period the Niagara Peninsula formed part of the Neutral country held by natives belonging to the



Figs. 12 and 13. (22,815).

Huron-Iroquois stock, the last-mentioned contingency is not an improbable one, as it is conceivable, in terms of the understanding existing among the Indians in this part of the continent, that refugee bands from outlying tribes would here find at least a temporary asylum. On such a supposition we can understand why ossuary-making Indians would have to content themselves with any available ground, no matter how low and level, and why, for a similar reason, those of mound-building usage should have chosen such an equally low place for their structure near Port Colborne. It should, however, be remembered that two mounds were constructed on a similar situation at the mouth of the Otonabee River.

THE YELLOW POINT MOUND.

Just before the Twenty Mile Creek* enters Lake Ontario, after flowing by a northeast course through the Townships of Gainsboro', Clinton and Louth, in Lincoln County, it expands into a pond, covering several hundred acres, surrounded by steep, high shores, especially on the right, or east, bank, where the elevation may, in some places, be as much as sixty feet. On both sides the land through which the stream has cut its way is comparatively level, as might be expected from the fact that it was the lake bottom in that not very distant past, when the waters of Ontario laved the base of the



Fig. 14. YELLOW POINT MOUND.

escarpment now known as "The Mountain," which skirts, within a few miles, the greater part of the coast from Niagara River to Macassa Bay.

What is referred to here as a pond, must, at one time, have been a bay, but for some reason, possibly a slight elevation of the land, or a lowering of the lake level, a bar now separates it from Lake Ontario, leaving space for only a narrow channel to carry off the surplus water from the creek.

The east side of the pond is somewhat irregular in outline towards the southern end, and on the top of each of the three principal bluffs is a low mound. Notwithstanding the desire of the owners of the land to preserve these mounds, numerous diggers have made openings, hoping rather to find relics than with any desire to get information relative to structure, age or use.

* In Ontario and the Northern United States this name means a small stream, not a small inlet, as in Britain.

Permission having been secured (although, unfortunately, difficulties afterwards arose) to make a thorough examination of the most northerly of these mounds, on what is locally known as Yellow Point, the work was begun on the 18th of August.

The mound in question was oval, 38 feet in length, almost due north and south, 27 feet wide, and about $3\frac{1}{2}$ feet high.

Near the middle of the southwest quarter, and at a depth of ten inches, a small quantity of black mica was found, in plates from



Fig. 15. Yellow Point Mound, showing details on ground level.

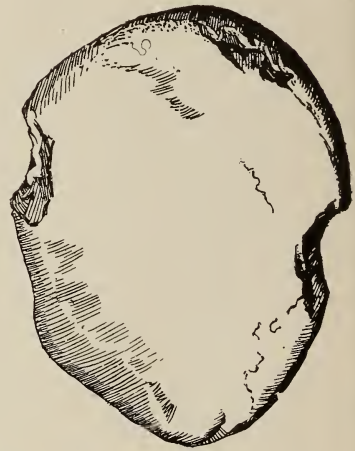


Fig. 16. (22,515), Rough Sinker.
 $\frac{1}{2}$ diameter.

an inch to two inches in width, and at a depth three feet a little further north were human bones, most of them being much decayed, and along with these was a rough sinker, of the kind usually found near water. Another body had been buried about five feet from the south end, and two feet west of the central line north and south. These remains were lying with the head towards the north. Near the middle of the mound in this quarter were a few mussel shells.

In the northwest quarter there was not a particle of anything to indicate human presence or agency beyond the mixed character of the soil, as shown in cross section—the old humus occurring in

small patches and streaks among the yellow, sandy loam, which formed the bulk of the earthwork throughout.

Most of the human remains were found in the east half, between the middle and the margin; two feet from the centre, and

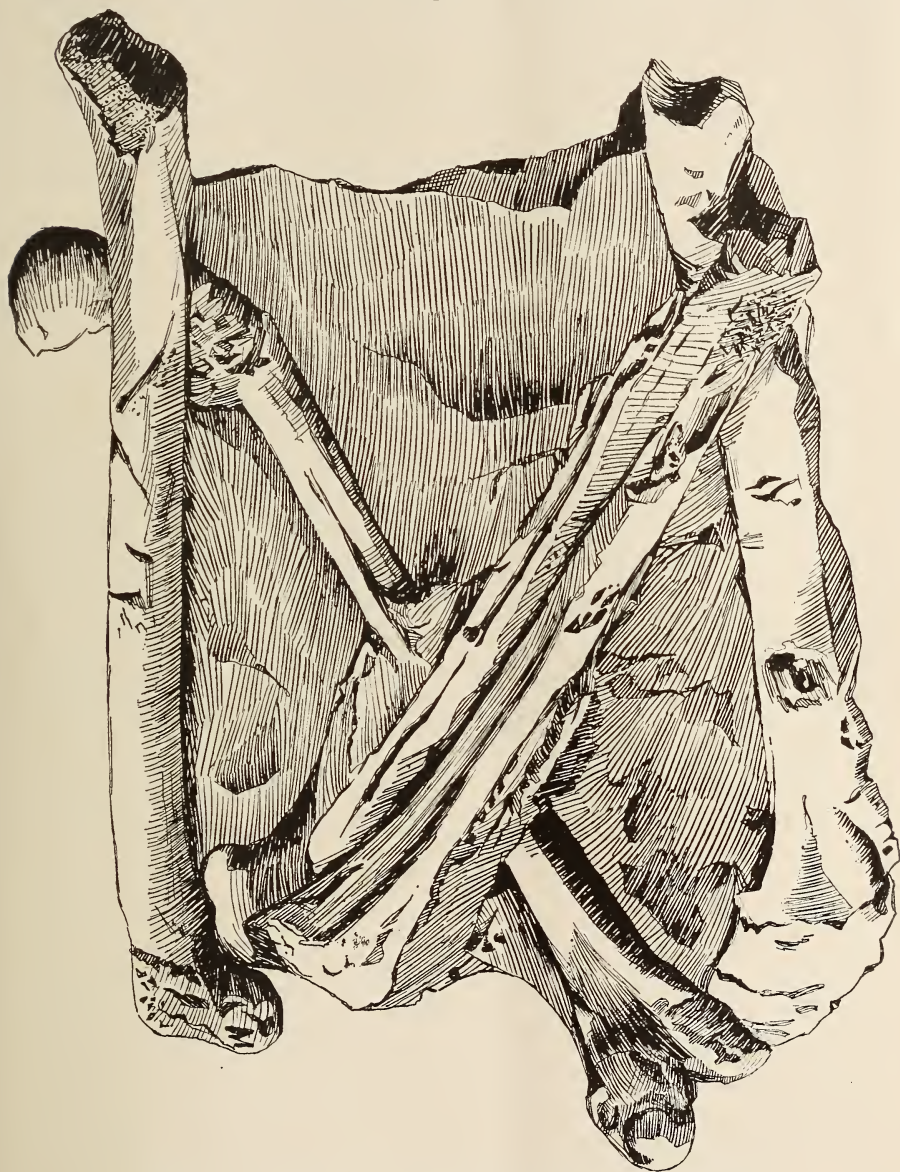


Fig. 17. (22,513), Leg bones as found in Yellow Point Mound.

three feet below the surface, we found the sharply-flexed leg bones of a man, and twenty inches north of this, a skull and some arm bones, between which, and near the hands were two roughly made arrow-heads of chert; and below the bones on the left side was a large slate knife or chisel. The positions of the groups were such as to render it a little doubtful whether they had, originally, been

connected, but the probability is that they belonged to the same body. The leg bones were bent as if the body had been found thus, and so buried. See fig. 17. The skull referred to in the other group of bones was the only one we found in anything like a preservable condition, and even it is so fragile that it is held together mainly by earth.

Firmly wedged between the arm bones were two very coarsely-made flints (figs. 18 and 19) and what seems to be an unfinished gorget or a knife of slate, fig. 20.

Between this skull and the eastern edge another body had been buried at full length, with the head to the south, 3 feet below

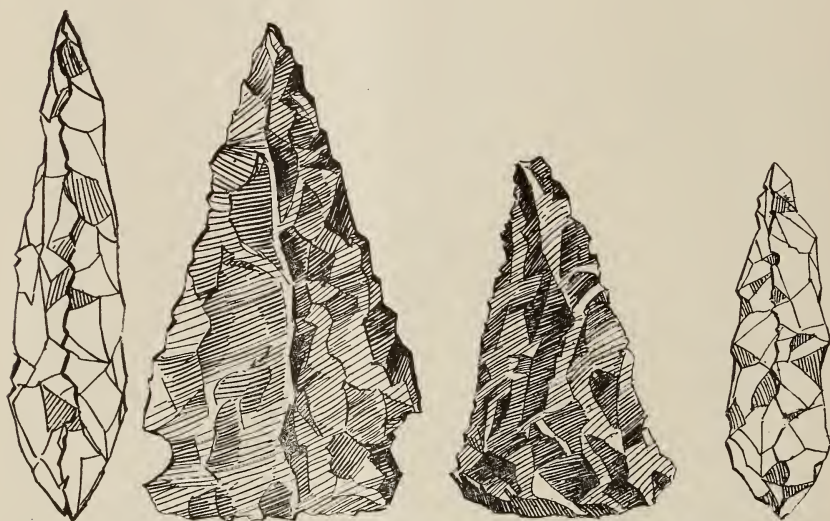


Fig. 18. (22,506).

Fig. 19. (22,507).

the surface; and still nearer to the margin were a few bones belonging to another individual, but these seemed to have been disturbed by someone who had made a hole in the mound here.

Perhaps the most interesting part of this mound was the southeast fourth, much of which consisted of burnt earth on a level with the base of the mound. The earth in this condition was near the middle of the southeast section, and covered a circular area eleven feet in diameter, the redness which marked its character being more decided in the form of a ring, about seven and a half feet wide, than it was in the centre, or round the outside.

Near the middle of this space we came on charcoal, and, a little to one side, what was evidently all that remained of a charred stake, (fourteen inches long, and three inches thick), yet standing where it had been driven in, and around the stake were portions of

human bones—skull, arm, leg, and rib—all thoroughly burnt.* Near the stake we found a small and roughly made stone axe. (Fig. 21).

The evidence was almost undoubted that here a living human being had been burned. As the charred wood and bones were on the same level as that on which the bodies were buried, the inference is that the burials and the burning took place simultaneously. It would be useless to offer anything as an explanation respecting

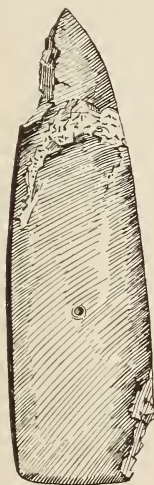


Fig. 20. (22,505).

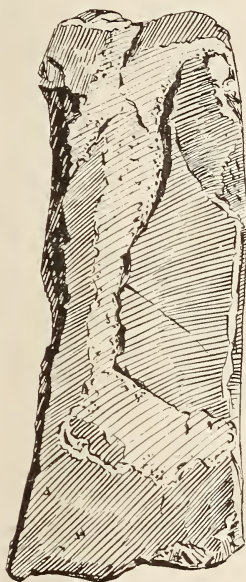


Fig. 21. (22,504).

why this was so, but from what we know of Indian character we are warranted in surmising that an enemy was here tortured by way of retaliation, in full view of the bodies of those, perhaps, whom he or his tribesmen had slain.

This, and the two other mounds already mentioned as being in the same neighborhood, are the only examples of their kind respecting which we possess any knowledge, as far as Niagara peninsula is concerned, with the exception of one already mentioned lying due south, about thirty miles, and close to the shore of Lake Erie.

* In Vol. VI., (facing p. 31) of the Ohio Archaeological and Historical Society's Publications, there is an illustration showing how Col. Wm. Crawford was burned at the stake by the Delawares and Wyandots, June 11, 1782. This picture shows the fagots in a ring about twelve feet in diameter round the post to which the prisoner is tied. It was only after seeing this illustration several weeks subsequent to the opening of Yellow Point Mound, that the ring-like appearance of the reddest-earth became understandable.

MOUNDS GENERALLY.

One of the numerous questions that are invariably asked by those who always gather on the spot when the work of opening a mound or on ossuary is going on, is: "How old is it?" and another is, "Who were the people that did this work?" When the work is a mound or embankment of any kind, the question as to the builders usually carries with it an implication that at any rate they were not Indians, so firmly rooted is the belief that another and a greatly superior people preceded those we now call Indians, and that Indians cannot be conceived as capable of sufficient exertion to construct such large earth-heaps, especially when, as in Ohio and some other States, many thousands of tons of earth have been handled in the construction of a single work.

Taking the latter query first, it may be said that the answer is comparatively easy, when the work in question is an ossuary, for we have the best possible authority for the belief that those who dug large pits in which to deposit their dead were of Huron-Iroquois stock, and, secondly, that in point of time no such burial pit, or communal grave, is of more recent origin than the middle of the eighteenth century. How much older than this it may be is a matter of conjecture, based on the condition of the bones, their arrangement or non-arrangement in the pit, the presence or absence of worked objects, and, if any such there are, whether they indicate "white" influence, or the reverse; but when there is nothing to afford any clue as to formation during historic time—nothing of European origin—one can only guess, and guess very vaguely.

When mounds are concerned the case is somewhat different, although a few of them too, have been found to contain objects of European origin, thus enabling an approximate date to be fixed with a degree of certainty. As most frequently happens, however, they contain nothing of this kind, the things inhumed with the bodies (in burial mounds), being wholly of native origin, and closely resembling surface finds of what we believe to have been the work of Indians. The inference, therefore, is that those who constructed the mounds were also Indians, and this is the view now most generally entertained, although it is not quite free from difficulty, respecting which nothing more need be said here. But, in any event, it is absolutely impossible, and, from the nature of the case must always remain impossible, to arrive at anything like assurance with regard to the date when any pre-historic earthwork was constructed.

If we suppose, as we have a right to do, that the heaping up of mounds for burial and some other purposes had a simple and only slightly significant beginning, as perhaps the marking of a single grave, which itself may have been suggested by the unintentional little hummock that was formed by covering a body with all the earth removed from even a shallow resting-place; or as a result

of laying the remains on the surface, and merely collecting a large enough quantity of earth and stones to cover them; and if we suppose still further, as we are also justified in supposing, that the people so influenced were moving as a body in a given direction, say, southwards, it is only reasonable to conclude that along the line or lines of migration we should find indications of such movement marked by an increase in the size of their earthworks—an increase corresponding to the development of their ideas with respect to the importance of such monuments.

Contrariwise, we may suppose, again, what is equally probable, viz., that in course of time, after the main body of the people had reached a desirable, and, therefore, a somewhat permanent abiding-place, straggling parties would continue to go off in various directions. In some cases those offshoots would cling to their acquired mound-building proclivity, while in others the desire so to mark graves, or to erect works with any other object in view, might be allowed to fall into disuse.

It should also be taken into account that from time to time during the course of such a migration small bodies would detach themselves, preferring not to proceed any farther, or to take a different line of travel, in which case development in certain directions may have ceased, or many have assumed new characters, if, indeed, former knowledge or custom did not even become a thing of the past.

The case, as here put very briefly, is in strict accordance with facts as these pertain to historical peoples; and human instincts, predilections and methods, whether tending to perpetuation, to progress, or to forgetfulness and consequent desuetude, have always been much like what they are among ourselves.

In such conditions, and lacking even a pretence of literature, it will readily be understood how utterly hopeless it is that we shall ever be able either to assign a date to the construction of a mound or to state by whom it was built, and for similar reasons we may see how absurd are the pretensions of writers who claim to classify and designate the purposes of all mounds other than those we know to have been made as places of burial.

In Ontario, mounds and other earthworks are not only comparatively rare and of small extent, but they exist in places widely separated, and we are unable to say positively whether the mounds proper in this Province are the work of the same people who constructed similar works in the northern States, or that they were made by others having no connection with the so-called mound-builders. What seems most likely is that they were the work of some straggling bands from the main body during its southward movement (if it was a southward one), or of some bands which for one reason or another found their way back here shortly after this latitude had been passed, and before the making of huge mounds had become a matter of so much importance, as it afterwards did. Failing this, we can account for our mounds only on

the supposition that the Algonkins, or their predecessors, whoever they may have been, went so far towards imitating their fellows to the south, for notwithstanding the conservatism that is so characteristic of primitive peoples, they are sometimes influenced to a very large extent by the customs and ceremonies of neighboring tribes.

Omitting earthworks or banks, which may have served for protective or defensive purposes, it is noticeable that all the mounds properly so-called in this Province are situated along main water-routes, and this fact of itself lends color to the surmise that they were constructed by a people who were not long occupants of the soil—who were merely moving slowly in a more or less definite course. Otherwise, we might expect to find works of this kind farther inland on the banks of small streams, as in Ohio, Michigan and other States.

It may be mentioned that such mounds as are here referred to (besides those at the mouth of the Twenty Mile Creek) lie along the north shore of Rice Lake and the River Trent,, and the south shore of the Bay of Quinte.

EARTHWORK IN TOWNSHIP OF MOORE.

Dr. T. G. Johnston, M.P., for West Lambton, having directed the attention of the Department to the existence of a large earthwork within a few miles of Sarnia, I was directed by the Minister of Education to visit the place and make an examination of it. In company, therefore, with the genial doctor, who is deeply interested in our Provincial archaeology, and possesses a small collection of excellent specimens, I reached lot No. 26, on the 11th concession of Moore, when a short walk through the woods brought us to a large, oval earthwork, the area of which is sparsely covered with small trees, all the enormous red oak, for which this portion of the Province was so famous, having been cut down in the early days of settlement for the making of potash, or "black salts," or, more recently, for timber.

We soon ascertained that the longer axis of the ancient enclosure was in a northerly and southerly direction, and with the assistance of Mr. John Miller, who resides not far away, we made a number of measurements, but ascertaining after our return to Sarnia, that Mr. Alfred Willson, Manager of the Canada Company, was in town, and as he had formerly suggested an examination of the embankment, he now kindly consented to accompany me on another visit to it, when his professional services as a civil engineer were freely given in the making of a more exact survey than Dr. Johnston and I had been able to accomplish. To Mr. Willson also we are indebted for the drawing of the earthwork, which is here reproduced.

The land on which the work has been constructed is as level as is all the land in this part of Ontario, and this means that it is

almost a dead level. Measured from crown to crown of the bank, the diameters are 330 feet, and 176 feet. All, or most

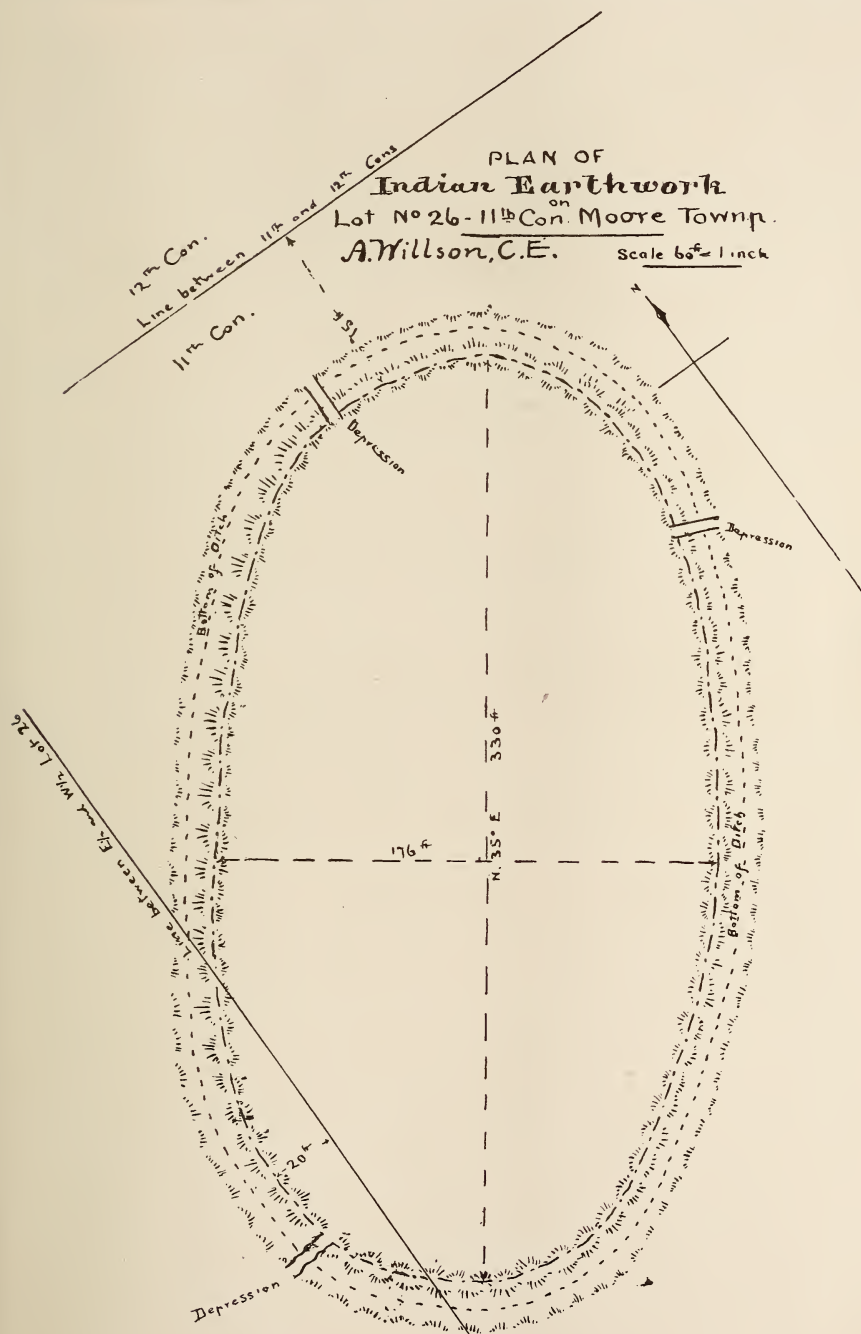


Fig. 22.

of the earth has been taken from the outside of the bank, and close to the base, where the greater part of the material has been removed,

there is a shallow ditch from ten to twelve inches deep, and varying in width from three to four feet. From the bottom of this ditch to the level of the top of the bank, the greatest height was found to be barely three feet, but the average is under two and a half feet, while the width of the bank at the base is from eighteen to twenty feet. At one place, near the southerly end, towards the west side, and at two places near the northerly end, there are depressions, but it is not easy to say whether these formed part of the plan, or are the result of washouts, or are passages recently made either to haul out timber, or as a result of hauling it out. The embankment is too low to have rendered any such means of entrance necessary, but if the enclosure was palisaded, as seems probable, these depressions might have been worn down at gateways.

Otherwise than for defensive purposes it is difficult to conceive of any reason for the existence of such an embankment, which, after all, was only what served to support one or more rows of stakes, or palisades, for, it may be noted, that instead of digging holes to receive the posts, these were most likely placed in order on the surface of the ground, after which the earth was scraped up and heaped about them to a height of two or three feet.

At present there does not appear to have been any water-supply for the use of those who occupied the place, but when the country was in "bush" it was not necessary to go more than two or three feet deep to find water almost anywhere in this district.

The distance of the earthwork from the River St. Clair is a little more than two miles in a straight line west, and, with our eyes, it is very hard, if not quite impossible, to surmise any reason for this choice of position. About three-fourths of a mile northward a small stream flows sluggishly to the river, and no doubt this stream was navigable for canoes when the country was forest-clad. By this route access to the place would prove comparatively easy to those who knew the way, while its distance from the river, in the heart of the bush, must have rendered it somewhat difficult for any others to reach. But for the existence of the stream referred to there does not appear to be any reason at all why the earthwork should have been constructed where it is, rather than anywhere else in a stretch of many miles north and south.

With some time and labor it would be possible to expose traces of the posts or stakes that once stood in the embankment, for even although none of the wood may remain, a careful slicing of the sod to a depth of from two to four inches will probably result in showing circular patches of darkly colored earth, marking where the posts were planted, the darkness of color being on account of the humus formed by the decay of vegetable matter in the holes, while the posts themselves slowly crumbled. This, at any rate, may be done where the soil is light in color, but in the Township of Moore the general dark color of the soil to a considerable depth may make such an examination less easy.

Within the area of the embankment there are no surface indications of residence such as marks where houses have stood, and the spade failed to show any signs of ashes in the various places where holes were made.

With the exception of a small stone pipe, fortunately found by Dr. Johnston, very few relics have come from the enclosure or its vicinity.

As in the case of the Southwold earthwork, and in that of the Otonabee Serpent Mound, it is very desirable that steps should be taken to preserve this interesting example of early Indian occupation, and we can only hope that Mr. Henry Hossie, the owner of the land on which the Moore earthwork is situated, will continue to preserve it from demolition. Some of us may live to see the time when provision will be made by law to prevent the destruction or removal of such ancient landmarks, as in some other countries.

In Mexico the law prohibits even the removal of aboriginal relics from the country without the consent of the Government.

REPORT UPON A SUPPOSED ABORIGINAL FISH-WEIR IN BURGESS LAKE, NEAR DRUMBO, ONTARIO.

BY W. J. WINTEMBERG.

In the fall of 1898, Mr. Rathbun of Drumbo informed me of the discovery of some stakes in the bottom of Burgess Lake, which, he believed, had been placed there by the aborigines. Upon inquiry it was found that none of the old settlers knew of their existence; it was only after the lake had been drained that they were discovered.

Not having seen a similar structure before, I hastily concluded that it might have been the work of some early white trapper, but a subsequent examination of the ends of the stakes, convinced me that it was not the work of a white man, for, even if provided with only a dull iron axe, he would have succeeded in making the ends of the stakes more pointed. Moreover, of what possible use could the structure have been to a white man? The only suggestion I have to offer in regard to the use of the structure is that it is the remains of a fish weir, but this identification is to be regarded as provisional only.

It is a well-known fact that the Indian tribes of the Atlantic coast region made use of fish-weirs. Capt. John Smith records their use among the aborigines of Virginia. In Thomas Hariot's "History of Virginia,"* and in Robert Beverley's "Virginia,"** a number of plates are given in which they are delineated. Several years ago, Dr. H. T. Cresson discovered some stumps of stakes in

* Plates vi., vii., xiii. and xvii. Two kinds are shown in Plate xiii.

** "The History of Virginia," in four parts: (London, 1792), p. 130.

Naaman's Creek, Delaware,* which are supposed to have been the remains of such a structure; but these, according to Prof. W. H. Holmes, (x) "appear to be much heavier than would have been used for the purpose by the natives." There are only two recorded instances of the occurrence of fish-weirs in Canada. Several fish-stakes were found some years ago at the Narrows, Lake Couchiching.|| In H. Y. Hind's Report (p. 83), J. Fleming records a weir built by Indians across the Jackfish River near Lake Winnipeg.

The Burgess Lake structure consists of two parallel rows of tamarack stakes, which pursue a northeasterly course for a distance of about 52 feet, and then make an abrupt turn to the east, and

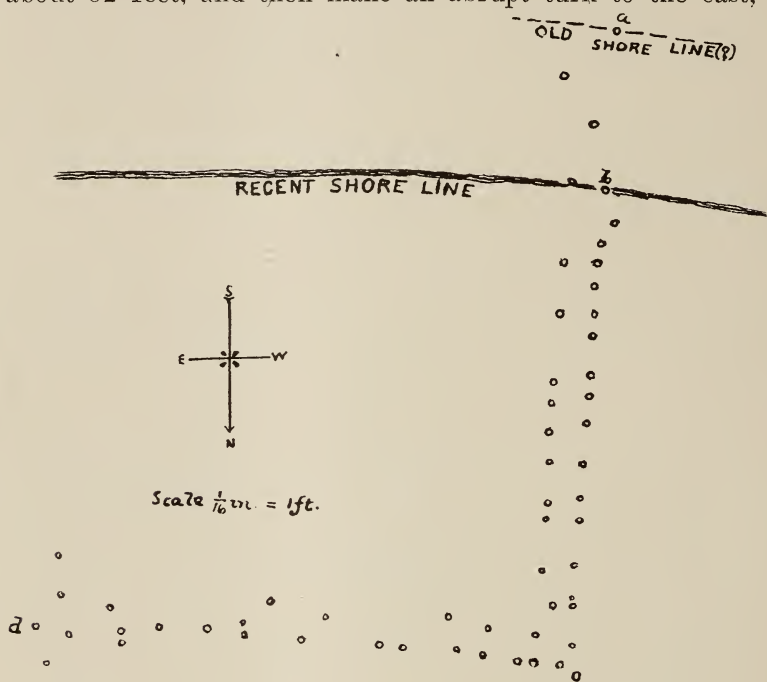


Fig. 23.

extend for another 42 feet, to d. See fig. 23. From here, apparently, they at one time extended to the eastern shore of the lake, for, there, 280 feet from d, ten other stakes were found. The figure shows the arrangement of the stakes. The natural outlet was near a ditch. The shore line east of this ditch has been destroyed by cultivation.

The rows, in some places, are from 16 to 40 inches apart, but the general width is 30 inches. This is also the average distance

* "Report upon Pile Structures in Naaman's Creek, near Claymont, Delaware," by Hilborn T. Cresson (Archæological and Ethnological Papers of the Peabody Museum: Vol. I., No. 4): Cambridge, Mass., 1892.

(x) "Prehistoric Textile Art," in the 13th Annual Report of the Bureau of American Ethnology; pp. 14-15.

|| *Vide* General Clark's Paper "A Study of the Word Toronto," in the Archæological Report for 1899, pp. 195-196. Also "The Canadian Indian." (Sault Ste. Marie), Vol. I., 1890-91.

between the stakes of each row. The stakes are from 2 to 3½ inches in diameter, and their length is about 6 feet. Nearly 10 inches protruded above the bed of the lake at the time of discovery, and this exposure was, no doubt, due to the partial subsidence of the muck composing the lake-bed. Eighty stakes were then counted, but many have since been removed and only about fifty remain. Mr. Rathbun found three or four stakes buried in the bog recently forming the shore, and this proves beyond a doubt that the sphagnum growth has made an encroachment of nearly 13 feet since the structure was formed. Mr. Rathbun also examined the west and north shores of the lake, but failed to find any more stakes.

The stakes were not sharpened by cutting toward the end, but the ends were split and reduced to a point by stripping off small pieces. This splitting could have been done with a stone axe. I have one stake which appears to have been partly cut through and then broken off. No attempt was made to sharpen it, and the axe marks may still be seen. Many of those examined by Mr. Rathbun were "broomed" at the ends—possibly the result of persistent hacking with a stone axe.

It is difficult to explain the purpose of the two rows of stakes. The aborigines would scarcely go to the trouble of wattling two rows when one would serve the purpose just as well. It has been suggested that possibly "brush" was piled in between the two rows until an almost solid wall was formed. This would have served as an effective bar against the passage of fish, but perhaps those who think of "brush," fail to realize how difficult it would be to make it sink. The shallowness of the stakes, precludes all possibility of there ever having been the remains of a pile-dwelling, as some think and this is further proved by the parallel arrangement of the stakes.

At a depth of from four to five feet is a bed of hard clay, on which the points of the stakes rest. The depth of the water at this place was two feet, and this explains why the stakes were never seen.*

The ichthyan fauna of the lake may have been more extensive in prehistoric times, but the following is a complete list of the species inhabiting the lake before it was drained :—

- Catfish (*Amiurus nebulosus*).
- Black Bass (*Micropterus dolomein*).
- Yellow Perch (*Perca flavescens*).
- Sunfish (*Lepomis gibbosus*).
- Large Sucker (*Minytrema melanops*).
- Small Sucker (*Erimyzon succeta*).
- Horn Chub (*Semotilus atromaculatus*).
- Silver Chub (*S. bullaris*).
- Shiner (*Notropis megalops*).

* Mr. Rathbun says he has often passed over the spot in a boat, but never saw them.

Few would be of much economic importance to us, but, we may presume that to the Indians, simple in their tastes, nearly all, or even all, of these fish would have been of some use as food; and possibly their presence and difficulty of capture by other means led to the construction of the weir.

INDIAN OCCUPATION IN NISSOURI.

BY L. D. BROWN.

All who are interested in the research which is being made into the history of the aborigines of this country will mark the great progress made in this direction during the last decade. At the present time, when men are bending every energy to collect and preserve, implements of war, ornamental, religious or ceremonial objects, and also to gain information as to the mode of dress, living and daily occupation of a prehistoric race, it becomes the duty of every individual who may possess the knowledge, and also of the Government, to do all that is possible to aid and further such research. We are pleased to know that the Government has taken such an interest, and has established a museum in connection with the Education Department in Toronto, which is destined to be one of the city's chief attractions. The museum has in its cabinets a very large collection of stone implements, flints, slate, copper, bone, shells and pottery, including many articles of domestic use among the savages. There is also a large collection of crania of the different tribes of Indians who formerly peopled this country. Some of the implements are rough, while others exhibit great skill. Besides these, there is a large number of iron tomahawks of various patterns, which mark the advent of European civilization. These specimens are properly arranged in handsome cases. Many townships and counties in the Province yield abundant proof of busy human life in the dim past, and, knowing that the Township of East Nissouri, in the County of Oxford, was peopled by savages, and was the scene of active life, we have spent much time during the past three years in search of specimens, and locating old camp sites. We feel justified in saying that we have located at least three Indian settlements, or villages in the township. The first one of which we will speak is the village at Lakeside. The lake is a beautiful sheet of water, covering an area of about one hundred acres, and is divided by the 12th concession line, part of it being on the east half of lot 24, and part in the west half of lot 24 in the 13th concession. On the west side are bluffs, while on the south is a swamp or huckleberry marsh, which forms an outlet. The camp sites are on the east and west sides, being on lots 23, 24, 25 and 26, as may be seen by the accompanying diagram. These camps are over 30 in number, and vary in size from eight rods to 50 in length. They are, as a rule, either oblong or round, and would accommodate from 10 to 50 persons, providing the lodges were built on the plan we

imagine; that is to say, the outer edge of the lodge would be at least eight feet from the fire. We conclude that their lodges were built of bark, the place chosen for a camp site being where small trees could be used to support the framework. In building, the bark would be placed around the camp fire, something in the shape of a dome, with a portable door, and a large aperture for the smoke to escape. This theory must be reasonable, from the fact that the Indian could not pass the winter of Ontario without shelter of some

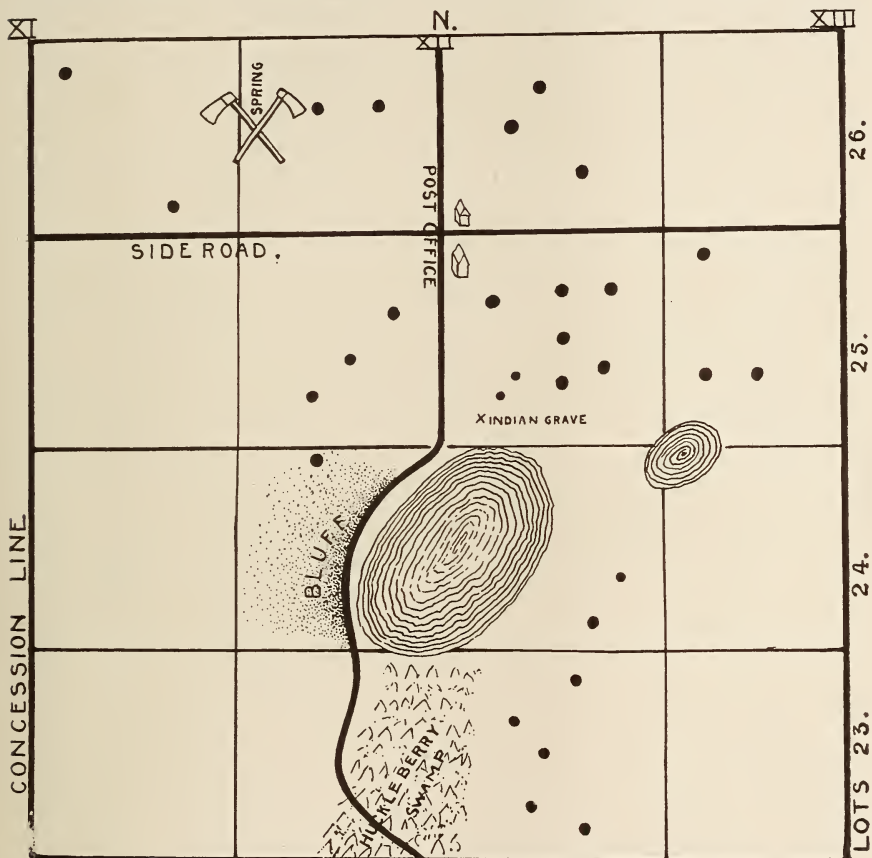


Fig. 24. INDIAN VILLAGE SITES, NEAR LAKESIDE.

kind, either in the way we have described, or a dug-out, and as we have no evidence of the latter, we are forced to the conclusion that it was constructed of bark, as we have found stone implements which appear specially adapted for the purpose of removing bark from trees. It would be proper to mention, at this point, that another small lake lies about a quarter of a mile to the northeast and covers an area of about 30 acres, being situated at the back of lots 24 and 25, in the 13th concession, as will be observed in the diagram. The camps, with very few exceptions, are on a sloping hillside, facing a stream or ravine. In the interest we have taken in the aboriginal history of Nissouri we have located the situation

of the red man's humble dwelling, and we find that he chose some elevated spot along the banks of a stream or river, which was his only highway, and which guided his prereginations from place to place. In this respect he was not unlike his white brother in his choice of location of a habitation. Almost without exception the early settlers of the country erected their log-cabins on some elevated spot, near the road, on the lot which they had taken up. We conclude from observation that the Indians constructed their camp fires by excavating the ground to a suitable depth. The stone being procured, we assume it was placed in position something after the order of paving. On these hearthstones, the fires were built, which gave, both light and heat to the inmates, and, after the fires had gone down, the heat of these stones would keep the place comfortably warm for many hours. These stones, being freed from ashes, while still hot, would afford good opportunity to roast flesh, and would serve to dry strips of meat which were suspended from the roof of the wigwam, for future use. The stones by continued use became broken into small pieces, and it was necessary to repave the fireplace. This may have been done two or three times, as the broken stone were found to be from eighteen inches to three feet in depth. The absence of wood ashes among the stone was somewhat remarkable. The stone is imbedded in a sooty substance composed of what appears to be earth and powdered charcoal. These remain black in any soil, though the land may have been worked for more than half a century.

Unlike the camp fires in other places, where wood ashes are found, these yield nothing to the relic-hunter. but around them hundreds of stone celts or axes have been found, and thousands of arrow and spear heads of all descriptions, flint drills, with slate gorgets of different patterns of Huronian and other slates. The only pipes found were at Lakeside. Those having first attracted attention were picked up, laid aside, and either lost or carried away, as well as some of the finest specimens of gorgets; while the axe and arrows were until within the last few years regarded as worthless. Small fragments of pottery were found on the east side of the lake, and two broken amulets, the head of one resembling a wild goose. Iron tomahawks are not abundant in Nissouri, as about twelve will cover the number as far as we know. One of these was found by Henry Craig, some fifty years ago, on the 11th concession, not far from Lakeside. It had been thrown into a tree about a foot from the ground, and was almost grown over, only a small portion of the poll being exposed. Charles N. Mitchell of lot 25, whose farm is on the shore of the lake, gave us valuable assistance in locating old camp sites, a number of which are found on his farm. Mr. Mitchell has a good collection of Indian relics. There are also camp sites on lot 26, the farm of Frank Seaton, who also gave assistance. Mr. Israel Mead spent some time with us, locating camps. The arrow and spear heads found around Lakeside have a rusty appearance when compared with others found in the township,

which gives the impression of greater antiquity. However, we attribute this to the sandy soil on the lake shore.

At settlement No. 2 the same class of weapons was found, the centre of the settlement being near Kintore on Armstrong Creek, between lots 13 and 14, in the 11th concession. Other camp sites may be found as far south as lot 11, and on the north side as high as lot 17. This may include from 10 to 15 camps. Within this area hundreds of specimens have been found, among these a spear head over seven inches in length, perfect, and of a beautiful design; also a tube of Huronian slate, and a red slate spear head highly polished. These were found on the farm of Thomas Pearson, lot 14, and not far from here on the Potter farm, lot 17, a spear head of quartz between four and five inches in length, remarkably white and clear, was picked up. Settlement No. 3, at the junction of McKay's and Purdy's Creek, lots 24 and 25, may be considered its centre. The other camps extend for some distance north and south, along the banks of the creek. Within what might be considered the bounds of this settlement the usual number of stone axes or celts, with slate gorgets, arrow tips, and spear heads, also three iron tomahawks, have been found. Special mention may be made of a fine specimen, a gouge picked up by Carman Brown on lot 25, also a gorget of Huronian slate from the farm of Mr. Alex. McKay. A banner stone of a dark green color was found by Fergus McMaster on his farm on the 7th concession. It was of the butterfly pattern; on the upper edge were twenty distinct marks, while on the lower edge of the reverse side we counted 26. Our first idea was that this represented a record of events. However, those marks so closely resemble those on pottery, we concluded that they were simply ornamental. Perhaps no greater variety of spear heads and arrow tips has been found in Ontario than in the bounds of these settlements. Occasional isolated camps are found, which make between 50 and 60 now located. The food supply at Lakeside was an abundance of chestnuts and huckleberries, while the lake abounded with catfish. At settlement No. 2, on Armstrong's Creek, could be had wild apples and large quantities of grapes and black cherries. At settlement No. 3, along the flats, butternuts, wild plums and other small fruits were found in great profusion. We might here mention that at settlements No. 2 and 3 several beaver dams were found. These, along with a plentiful supply of other game, made this a favorite camping-ground. There is no evidence that the Indians of Nissouri ever cultivated the soil. There are six private collections of Indian curiosities in Nissouri, the greater number of the relics having been picked up during the last few years, and would number about fifteen hundred specimens. The question is at what period were those villages inhabited. In 1640 this country was inhabited by the Neutral Indians. Parkman thus describes this warlike tribe: "In their athletic proportions, the ferocity of their manners, and the extravagance of their superstitions, no American tribe has ever exceeded them."

The Jesuit fathers, Brebeuf and Chaumonot, visited the Neutral Indians about the middle of the 16th century, and it is quite possible they were at the Lakeside village. The only evidence was a bronze medal and spoon found on the skeleton of an Indian in a shallow grave on the shore of the lake at Lakeside, some forty years ago, which were both, unfortunately, lost. However, it is evident that the fathers, as well as very early French traders, ascended both the north and south branches of the Thames in the Township of Nissouri. On the south branch of the Thames was found a bronze tomahawk of a beautiful design. This was ten miles from Lakeside, on the farm of Walter Freel. A theory has been advanced that this was one of the hatchets which the Hurons gave the Neutrals to induce them to put the Jesuit fathers to death. On the north branch of the Thames, Robert Elliott, an enthusiastic collector, picked up an old French knife on the bank of the river at Plover Mills. Since then another has come into his possession, found near this point, which was originally a far superior weapon, being when open nine inches in length. The point of the blade is formed like a dagger; the handle has every appearance of having been at one time handsomely mounted.

He has also a French tomahawk, found near this place. These all bear evidence of great age. It was but a short distance from this place that Mr. Chris. Switzer ploughed up an old hatchet. The bit is five inches in width, a chain-like mark runs round the poll, while one side of it bears an Imperial stamp. This is supposed to be of British manufacture, and was found about fifty years ago. Long after the Neutrals had been driven out of this country fragments of wandering tribes were found here by the early settlers, roving from place to place. We are indebted to Mr. Robert Garner, a pioneer of West Nissouri, for a description of an Indian burial on the north branch of the Thames, about 1830. There were about 25 Indians present. The body was placed in a coffin made of bark, from which the rough outer bark had been removed. The head of the coffin was either oval or square, while the foot was wedge-shaped, something in the form of a canoe. The pieces were sewed together with strips of hickory bark. The lid was also of bark, and fitted neatly. When complete it was an admirable piece of workmanship. Along with the body in the coffin they placed a bow and arrow, tomahawk, and some trinkets. The shallow grave in which the body was placed was then filled in, after which they cut small white poplar poles, about six feet in length which were laid on each side of the grave, and were connected on the notch and saddle plan by shorter poles, at the head and foot. The ends were in the form of a gable, while each round of side poles was gradually drawn in, until one pole formed the ridge, the whole forming a complete roof. Mr. Garner says when complete it was picturesque. We are also indebted to Miss Fanny Reid of Zorra for a description of an Indian burial on the same plan as the former. However, in this case we think the poles were of peeled cedar or tamarack. This took

place near Harrington, and an account of it was given to Miss Reid by her father, one of West Zorra's earliest pioneers. The finding of Indian remains may not be so rare, as individuals who have found skeletons never mention it unless in connection with a subject of this kind. It is believed by Dr. Sparks and other that numbers of Indian graves may be around Lakeside, as the one described was found by accident. An early writer describes the disposition of their infant dead. They were placed in little birchen caskets and set among the flags on the margin of some inland lake.

Picture Writing.—In speaking of the Indian, we might here relate a story told us by a gentleman who traded with the Indians many years ago. After purchasing furs, he and his partner made arrangements to trade again with them at some future time. However, during the period which intervened, the Indians had occasion to break up their camp. The traders, on coming to the old camp, found it deserted. On examination they saw on the smooth bark of the trees pictures of Indians and ponies, heading in a certain direction. They at once surmised that these sketches were to be their guide to the new camp, and, following these signs for many miles, came upon the new camping-ground.

An instance of fidelity on the part of the Indian is given by Andrew Logan, who was born in West Nissouri. He relates an incident of a few wandering Indians coming to his father's cabin for food and shelter. His father treated them kindly, and relieved their necessity. They disappeared as silently as they came. In after years, Andrew struck out to see the world. Arriving in Buffalo, where he hired to a lumberman running timber through the Erie Canal from Buffalo to the Hudson. River. On one occasion, being delayed, he, with others, resolved on taking a run down the river and seeing New York. As he was passing up one of the streets of the great city he was surprised at meeting an Indian, who called him by name. Mr. Logan was fairly nonplussed. When the Indian explained how he had stayed at his father's cabin in Nissouri. The Indian insisted that he should go with him to see some rich friends of his, where he might return the kindness he had received at the cabin in Nissouri. Mr. Logan explained that this would be quite inconvenient, as he would have to return with the other men that evening. Many more incidents of Indian characteristics might be related by the early settlers in the Township, and when the wooded pastured lands along the banks of streams and rivers are cultivated, much valuable information may be obtained of early Indian occupation in Nissouri.

NOTE.—Since writing a description of the Indian settlements in Nissouri several more camp-fires have been found, also two tomahawks not more than six feet apart, near a spring not far from the lake as seen in the diagram. Flint spear-heads and arrow-tips are found of different patterns and varied shades from mixed lime-stone to the most beautiful semi-transparent specimens with an occasional specimen of light quartz or dark grey stone. The writer has on loan, a specimen of Huronian slate in the form of a straight pick-axe. One side is marred by a small crevice. When this specimen was found the crevice was filled with the same dark substance found in the fire camps though found in clay loam a mile distant from any camp site. As far as I have examined there are no indications that the Indian who occupied this territory ever tilled the soil.

ANIMAL REMAINS FOUND ON INDIAN VILLAGE SITES.

BY DR. WM. BRODIE.

The following list of animal remains found on prehistoric Indian village sites, is based largely on personal researches over ten such sites situated in the county of York and the township of Pickering, extending over half a century, for it was in the summer of 1846 I first made the acquaintance of two of these sites, then covered with original forest, untouched by the axe of the settler. All of these Indian village sites, except three, are now in cultivated fields, and most of them have been ploughed and harrowed for a quarter of a century and every square yard of their area has been dug over by relic-hunters several times; but still every ploughing brings specimens of interest to the archaeologist. This and the blackened soil, from decayed animal and plant matter, testify to the long occupancy of these sites as human dwelling places.

Repeated ploughings and harrowings have broken the skulls and the bones of birds and small mammals into minute fragments. The lapse of time also has caused the decay of the small and soft bones. For it is not likely that any of these sites were occupied by Indians after the massacre by the Iroquois.

The first time that I saw the old fort in Whitchurch, in 1846, there were red oak and maple trees from 18 to 24 inches in diameter, growing in the bottom of the ditch, and on the top of the embankment, and on the area; enclosed by the palisade were a number of large pine trees, forking at the base into a number of trunks.

No doubt these trees were growing when the place was occupied by the Indians, and were mutilated by them. Several of the stumps of these pines are still in good preservation. These could be sawed off and a date computed from them.

Both land and fresh-water shells were roasted on burning coals. This caused the foot to protrude, when the animal was pulled out and eaten in the same way as whelks. This partial calcining of the shells accounts for their fragile character, readily crumbling into powder.

The only bones of fish found were sections of the backbone, which had been worn as beads, or ornaments of some kind.

The skulls of mammals were invariably broken, to get out the brains which were used in tanning skins and for other purposes. In all my searchings I never found the skull of any animal entire; but these broken skulls supplied much material for specific identification. The long bones of mammals, both large and small, were broken to get out the marrow.

The breaking appears to have been done by striking the bones with a stone mallet, in such a way as to make an elongated fracture, so that the marrow could be readily got out, and cutting or boring tools shaped from the broken pieces; so, in almost every case identi-

fication was from the heads of the bones, which in most cases were unbroken.

In two of the midden heaps I found human bones which had been broken as the other animal bones were, strongly suggestive of cannibalism. To say that a ton of archaeological material was collected from the County of York sites, is a moderate estimate.

Some of it is in European museums, some in the States, and some of it in Laval University, some is still in the hands of amateur collectors, and a little of it has been secured for the Provincial Museum; but the greater part of it, once in the keeping of private collectors, is gone, being neglected and lost, as private collections often are.

MOLLUSCA.

Anadon footiana.

Partially calcined fragments of Anadons were more or less common in all the midden heaps examined, a few of the more perfect doubtfully referred to this species. Several species of Anadon are common throughout Ontario in still waters, having muddy bottoms. The Anadon shells are more fragile than the Unios and are not so durable. They are usually found in shallow water, and no doubt supplied the Indians with a large amount of food.

Margaritana rugosa.

Several worn and polished pieces of this shell from Old Fort Whitchurch were evidently used as cutting or scraping tools.

M. rugosa is the most ponderous of our Unionidae, and does not occur in the York County. The specimens may have been brought from tributaries of the Grand River.

Unio pressus.

Partially calcined fragments of this shell were more or less abundant in all the village sites over the northern part of York. Several fairly well-preserved pieces of valves were picked up, no doubt used as tools of some kind, easily identified as of this species. In the early years of the last century this species abounded in the upper tributaries of the Humber, the Don and the Rouge. Being found in shallow rapids, they were easily collected, and no doubt formed a staple article of food. In some of the small streams this shell is still found, having held its place against the inroads of civilization.

Unio luteolus.

Partially calcined fragments, doubtfully referred to this species. *U. luteolus* is a common shell over the southern and central parts of Ontario in lakes and slow-running streams, in water from one to six feet in depth.

Unio complanatus.

Common in all the debris heaps, usually in partially calcined fragments. A few valves have been picked up nearly entire, the hinges rubbed off and polished, the edges sharpened, evidently used as cutting or scraping tools. This is now the most common *Unio* in the Province, occurring in lakes, ponds and slow-running streams everywhere.

Paludina decisa.

A few specimens fairly well preserved, pierced through the aperture, well within the edge of the lip. No doubt used as ornaments.

This species is generally distributed through Ontario on the sandy shores of lakes and sluggish streams. When young this is a pretty shell, the epidermis is well polished and of variegated greyish green colors, this and its durable quality, no doubt, made it a favorite ornament of the Indian women.

Melania livescens.

This durable and graceful little shell was found in most of the debris heaps, searched over, and it would seem to have been a favorite piece of jewelry. A few specimens, very well preserved, and pierced for the passing of a string, probably water worn specimens, picked up from lake shores, now commonly found in shallow water.

Limnea stagnalis

Many partially calcined fragments doubtfully referred to this species, a few in which identification was more certain.

L. stagnalis is the largest of our univalves. The shell is too thin and fragile to be of any value as cutting tools, but no doubt this species supplied a large amount of food. It is abundant, widely distributed and easily collected.

Limnea modicellus.

A few fragments referred to this beautiful species in debris heaps to the north of the height of land. Now rare in tributaries of Lake Simcoe.

Limnea palustris.

Partially calcined fragments abundant. A few well preserved specimens, worn and polished, with holes within the lip, have been picked up. A common shell in all our shallow waters.

Physa heterostropha.

Many small fragments of doubtful identification, a few pieces of the body whorl, with the lip perfect, have been picked up. The shell of this very pretty species was used as an ornament, and this with a species of *Succinea* were doubtless used as food. *P. heterostropha* is common in shallow ponds and in lagoons rich in aquatic vegetation.

Planorbis trivolvis.

Abundance of partially calcined fragments in all the midden heaps, a few fairly-well preserved specimens rubbed smooth and polished by long use as ornaments. This widely distributed species is common in ponds and sluggish streams.

Planorbis bicarinatus.

Found in the same localities and in the same condition as is the last. More or less abundant in shallow waters throughout the Province.

Helix palliata.

A few broken pieces of this handsome shell, showing the wide lip and peculiar armature of the aperture, polished by long use as an ornament. This species is found in damp forests and cedar swamps, rarely in open fields.

Helix monodon.

A few broken pieces of this pretty little shell. One from Old Fort Whitechurch, in which a hole had been made through the centre of the spire.

Helix albolabris.

Many small fragments, doubtfully referred to this species. A few in which the lip is more or less perfect and identified with a good deal of certainty. This is the most common of all our air breathing shells.

VERTEBRATES.

FISH.

Salmo salar—Salmon.

Sections of the vertebra of this species or of the next, for there is scarcely an appreciable difference between the bones of the two, have been found in most of the debris heaps very well preserved, rubbed smooth and polished by long use as ornaments. The specimens were evidently from large fish, probably weighing over fifty pounds.

The Indians killed salmon while ascending the smaller streams in the spawning season. This was a favorite method of capture, practised by the early settlers in the County of York, as well as Indians.

I have heard old men tell of having speared salmon in the upper tributaries of the Rouge, where they cross the townline between Markham and Whitechurch.

Salmo namaycush—Salmon Trout.

Section of vertebra doubtfully referred to this species. This species not ascending streams to spawn, was not so easily taken as the last. No doubt brook trout, suckers and smaller species of fish usually found in shallow rivulets, were taken and eaten by the Indians, but no trace of them has been found.

REPTILES.

Chelydra serpentina—Snapping Turtle.

Pieces of the shell made into implements, the purpose of which is not very well known. Several more or less perfect femurs. These peculiar bones were used for such purpose, being well polished. A fragment of the skull of what must have been a very large specimen, found in a midden heap on the banks of the Humber.

Chrysemys picta—Mud Turtle.

A few pieces of the shell perforated with holes in the usual way and abroken femur, probably of this species. *C. picta* is the most common mud turtle in the County of York, in millponds, lakes and sluggish streams.

BIRDS.

Bones of small birds, ducks and others, were abundant in all the village sites, too much broken and decayed for specific identification, pieces about two inches in length, cut from the middle of the bone, both ends gone, were common and well preserved, polished by long use as ornaments, but identification, except in a few cases, impossible.

The only bones of birds which were recognizable were tarsi, humeri and ulni. Hundreds of specimens were examined without finding one perfect enough for identification.

Ardea herodias—Great Blue Heron.

Tarsi, commonly called leg bones, shaped into various implements, as also humeri and ulni wing bones.

Meleagris gallipavo—Wild Turkey.

Two tarsi both shaped into sharp pointed instruments, for piercing, commonly called needles. The condyles articulating with the phalanges were perfect. Another tarsus, probably belonging to this species, had apparently been used as the stem of a pipe. These were found on the site on lot 9, con. 8, Township of Whitchurch.

Pandion haliaetus carolinensis—Fish Hawk.

One tarsus found in a grave with the bones of a young person. This peculiar bone was polished and well preserved, doubtless worn as an ornament by passing a string through the osseous tender-loop.

RODENTS.

Lepus americana—Wild Rabbit.

Numerous fragments of skulls, usually retaining the superior molars, also pieces of lower jaws. None of the other bones could be identified as belonging to this species.

This species, always abundant in forests, especially so in cedar swamps and being easily trapped, especially in winter, no doubt afforded a large supply of food.

Erethizon dorsata—Porcupine.

Broken skulls, usually retaining the molar teeth, more or less common in all the sites. Several femurs, one perfect, polished by long use, probably worn as an ornament, also incisor teeth not uncommon.

Fiber zibethicus—Musk Rat.

Broken skulls, usually retaining the molar teeth, found in all the sites. Broken lower jaws and loose incisor teeth common.

Castor fiber—Beaver.

Broken skulls, lower jaws, incisor teeth, abundant in all the sites, a few under incisors with holes towards the root end, one having a notch near the middle.

Arctomys monax—Ground Hog.

Broken skulls, now uncommon, more especially in the southern sites.

Sciurus carolinensis—Black Squirrel.

A few broken and badly preserved skulls of a sciurus, doubtfully referred to this species. Formerly the most common squirrel in the forests of Ontario.

Sciurus hudsonius—Red Squirrel.

Skulls broken in the usual way, incisor teeth, very common in midden heaps. The skulls badly decayed.

Tamias striatus—Chipmunk.

Fragments of skulls, more broken and more decayed than the other rodents, identification uncertain except in few cases.

RUMINANTIA.

Cariacus virginianus—Deer.

Skulls very much broken up, several upper jaws separated, usually retaining the molar teeth; lower jaws common, usually retaining the teeth, heads of the long bones common, and various implements made from the metatarsal bones ground flat on one side and various implements made from the horns.

Cervus canadensis—Elk.

Several molar teeth, heads of humeri and femurs, portions of horns made into various shapes.

Alce americanus—Moose.

Molar teeth, heads of humeri, femurs, portions of the horns cut into various devices. These were all found in the Whitchurch village sites.

CARNIVORA.

Ursus americanus—Black Bear.

Remains of this animal were abundant in all the village sites. Broken skulls, canine teeth, many with holes through the dentine, heads of the long bones usually in pieces, from two to six inches long. These were usually in a good state of preservation, and identification is easy and certain.

Procyon lotor—Racoon.

Skulls broken in the usual way, a few lower jaws nearly whole retaining the teeth.

Mephitis mephitis—Skunk.

A few broken skulls from sites in Whitchurch.

Lutra canadensis—Otter.

Several fragments of skulls doubtfully referred to this species, one perfect enough for identification, the cuspid teeth worn down to the alveolus.

Gulo luscus—Wolverine.

Several fragments of skulls and lower jaws, too much broken for certain identification. This animal was common in the forests of Ontario during the early part of the last century.

Putorius vison—Mink.

Several broken skulls of the smaller species of *Martinae* doubtfully referred to *P. vison*.

Mustela americana—Pine Marten.

A few broken skulls referred to this species which was formerly common in the forests of Ontario, preying on rabbits, squirrels, and smaller rodents.

Mustela pennanti—Fisher.

Fragments of skulls and a few broken femurs, referred to this species with considerable certainty. This active and powerful animal was common over the Ontario forests, in the days of the early settlements, preying upon rabbits, muskrats, and rodents generally.

Vulpes fulvus—Red Fox.

Many broken skulls, a few more perfect readily identified, numerous pieces two to four inches long appear to have been made from the long bones of the fox. These pieces of bone are usually well polished, being worn smooth from long use as ornaments of some kind.

Canis occidentalis—Wolf.

Many broken skulls, lower jaws broken at the symphysis, teeth, and heads of the long bones humeri and femurs belonging to this species or to the Indian dog. Many pieces of the long bones shaped into various tools.

Lynx canadensis—Wild Cat.

A few broken skulls and lower jaws, some of them retaining the teeth, and several implements and ornaments made of the long bones.

WAMPUM RECORDS OF THE OTTAWAS.

In the accompanying cuts we have some souvenirs of the days of wampum belts. A century ago such articles were in evidence among the eastern tribes, but almost unknown to the prairie tribes and western Indians generally. One reads so often of the giving of belts in early years to the eastern Indians that it is worth our while to learn something about them. In every case the belts figured here are a curious mixture of European and aboriginal symbols. It is noticeable in this group of belts that European symbols are scarce in the early ones and increase in the later ones. The copies from which these instructive engravings were made were taken from drawings belonging to Mr. Edgar Hallen, Orillia, who very kindly lent them for the purpose of publication. The drawings were facsimile copies of the belts (their full size), and were made by his father, the late Rev. George Hallen, from originals lent him by the Indian Chief, Assekiknk (Blackbird), in 1852. (His spelling of the name is used.) Wherever any memoranda were pencilled by the elder Mr. Hallen on the margins of the drawings, containing information about the belts, they will be found among the following notes:—

Figure 25.—This belt consists of 22 strings or strands, each string containing 458 beads, or a total of a little more than ten thousand beads (10,076). The human figures, with hands clasped indicate that a treaty is in force. The hexagonal figures doubtless symbolize national council fires. The belt contains the date 1764, woven in two parts “17” and “64” in the wampum beads, like an old-fashioned sampler. Just after the Pontiac war, deputies and warriors from many tribes assembled at Niagara in July, 1764. Amongst them was a band of Ottawas from Michilimackinac, and it was doubtless to these that the belt was then given by Sir Wm. Johnson, whose name was written on the drawing by Mr. Hallen, who had also pencilled on the margin of the paper the following particulars of the ends of the belt:—“The leathers are not above from half an inch to two inches long at the beginning, and half an inch to one inch at the ending. There are six branches of beads at the beginning, containing altogether 192 beads. One of the leathers is tied to the belt with a violet or blue riband. Number of beads, in each branch, 6 July, 1852; 20, 35, 38, 40, 30, 29; total, 192.”

Figure 26.—It consists of 12 strings, each containing 590 beads, or a total of 7,080 beads. The words “24 Nations” are written in two places on the margins, and they evidently explain the meaning of the 24 human figures on the belt. Mr. Hallen further notes on the margin the name of Nishkawzhinee. At the left of this name are the words, “his father,” probably meaning Assekiknk’s father. At the right of the name it is stated “the belt of 1764 was given to him,” evidently referring to this belt. Beneath the above Indian’s name is that of Nawsomushkooda, with the remark “lives

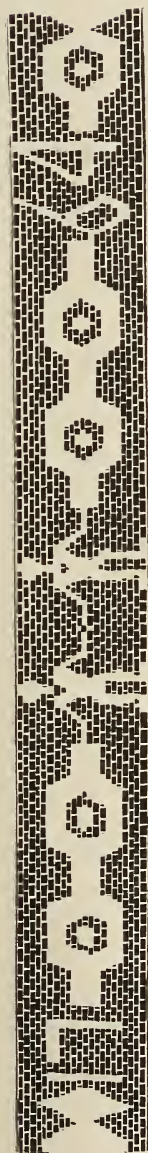


FIG. 25, Belt No. 1



FIG. 26, Belt No. 2



FIG. 27, Belt No. 3



FIG. 28, Belt No. 4

WAMPUM BELTS OF THE OTTAWA.

in the States." And beneath that again is the name of Mookoomaunish, "at Weikwamikong." Mrs. Jameson (Travels, 1837, Vol. 3, page 273) spells the latter name Mocomauish (the Bad Knife). The three names are perhaps those of the chiefs through whose hands the belt passed from 1764 till 1852. In all probability this belt was one given by Sir Wm. Johnson at the famous Niagara pow-wow in 1764.

The pattern shown on this belt, viz., human figures clasping each other by the hand and holding onto a ship at one end of the chain and a wigwam at the other, does not seem to have been uncommon on wampum belts. The old Chief of the Oka Indians at Two Mountains, near Montreal, had a belt of similar pattern. It was commemorative of their treaty with the British, as the figure of the ship would lead one to suppose. The import of the Oka belt, as described to the writer by an aged Indian who had seen it and heard it explained, was that the British were bound to supply the Indians with annual presents from the ship. If they should fail, the Indians would be at liberty to act unitedly to secure their just rights. The annual presents were to be given in return for the lands the white men took from the Indians. Such was the meaning of the Oka belt, and such is probably the meaning, or nearly so, of the belt of the Ottawas shown here. It is a very free translation of the pictographs, but comes near the meaning. Mr. Hallen pencilled on the margin of this belt the following particulars as to the ends of the belt:—"Size of leathern strings, about one-tenth of an inch in breadth, varying from 4 to 14 inches in length. They hang out at each end of the wampum belt."

Figure 27.—It consists of 20 strings of beads, each containing 516 beads, or a total of 10,320 beads. It is a hybrid of Indian pictographs, Roman capitals and Arabic numerals. Let us hope nobody will take this remarkable combination as evidence of Hebrew origin of the Indians. Two antique I's are used for J's, which are the initials of the name of Sir John Johnson, Bart. The belt was given about the time (1786) of the threatened outbreak between the Indians of the lakes and the new American republic. The volume of Canadian Archives for 1890 (Calendar of State Papers, p. 178) mentions an Indian council in 1786 (July 25), at which deputies of the Ottawas, among others, were present. Perhaps the belt was then given. Mr. Hallen pencilled the following remarks on its margin:—"This belt, in 1811, was painted red and taken by the Indians when passing through. . . . At the close of the war, in 1815, it was washed. At the beginning of the belt is pencilled the following:—"The leathers at this end are about three and a half inches long. Appended to the fourth row of beads from the bottom are five branches, one of them looped. There is a light blue riband at the place where they are attached. The branches contain altogether about 828 beads." At the ending is written:—"The leathers at this end are about four and a half inches long. Breadth of leathers at this end about one-eighth of an inch."

Figure 28.—It consists of fifteen strings, each containing 608 beads, or a total of 9,120 beads. The only pictograph on the belt is that of a peace-pipe, the rest consisting of the name of Lieut.-Col. McDouall, who relieved Mackinaw in 1814 when the Americans threatened it, and held command at the post for some time afterward. But the belt-maker was almost as sparing in the use of letters as the Latin epigraphists. It is also worthy of notice that the spelling of Mackinaw (McKinac) shows that the belt-maker mistook the post for a Highland Scotsman. Or it may be that the presence of so many persons of that nationality among the early fur-traders had already begun to leave its marks upon American spelling. Mr. Hallen pencilled on the margin, "year 1815," which no doubt shows when it was presented. At the ending of this belt is written: "To the upper row of beads at the end some thread was tied with two white china beads on it very clear, not transparent. Leathers, 3 to 4 inches long at each end."

A. F. HUNTER.

During the last few years there has been developed a craze for the collection of wampum belts, and those in the hands of private persons are held at exorbitant figures. The fact is that most of such specimens possess no archaeological value whatever, consisting, as they do, of white-man's-make material, while, ethnologically, they are little better than curiosities illustrative of an Indian-European combination of ideas, and workmanship.

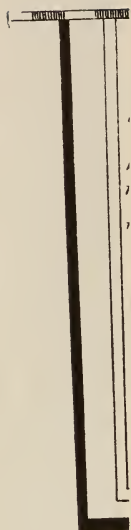
It is more than likely that many of these belts were entirely made by Europeans, with just enough "Indian" in the make-up to make them pass muster among the natives for commercial and treaty purposes.

D. B.



ARCHEOLOGICAL MAP OF THE TOWNSHIP OF MEDONTE (SIMCOE COUNTY).

EXPLANATIONS OF THE MAP.—The small squares indicate the positions of the different village sites, and the enclosed number in each refers to the description in the text, of which it forms a key. The heavy lines indicate the bonepits. Dotted lines show the forest trails. The shading shows the positions of three raised lake beaches, and these give the altitude of the land, the extinct shore line being supposed to run along the base of each line of shading.



NOTES

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INTRODUCTION.

PHYSICAL FEATURES.

The Township of Medonte has a central position in the hilly tract between Georgian Bay and Lake Simcoe, where the Huron Indians lived during the first half of the seventeenth century. It is of a regular shape, about nine miles from north to south, and twelve from east to west. An alluvial plain occupies nearly all of its westerly side. Proceeding from this plain, three sharply-cut valleys (whose bottoms have a level similar to that of the plain) traverse diagonally from southwest to northeast the remaining parts of the township, dividing its surface into four well-defined portions. I shall call these its four ridges, though each might be more fitly called a group of ridges than a single one. Through each of the three valleys flows a river, thus more effectually dividing the township into four natural divisions. The names of the rivers are the Hogg, Sturgeon and Coldwater. Besides these, the North River crosses the southeasterly corner of the Township, but only slightly affects the physical features. The four ridges thus formed, with a river between every two, may be named: (1) The Waverley Ridge, west of Hogg River; (2) the Vasey ridge, between that river and the Sturgeon; (3) the Mount St. Louis ridge (which in Tay I called the Rosemount ridge), lying between the Sturgeon and the Coldwater; (4) the Coulson ridge, lying along the whole southerly side of the township, and which really consists of the ends of various high ridges in the northern part of the adjoining Township of Oro.

Each ridge consists of high rolling ground, well suited for Huron occupation; and on all the ridges village sites are found in considerable numbers, especially along their edges, where the land rises out of the valleys. The distribution of Huron village sites depends on the physical features—on the extent and directions of the ridges and the courses of the rivers—as I pointed out in the township reports previously issued. It is not a part of the plan of this enquiry to give a complete account of the physical features of the township, but it is indispensable for the proper understanding of Huron occupation to know the main features of its surface.

THE RAISED BEACHES.

Up the sides of the ridges there are many raised lake beaches, and the terraces cut by them may be clearly seen. Everywhere we see these proofs that what is now land has been lake bottom, and that this change from water to land has taken place in very recent geological ages. Though at first sight these raised beaches may appear to have little bearing upon our subject, at a closer examination they will be found to possess an intimate relation to the villages.

Now, along these old beaches in many places there are swampy patches, often quite narrow, but made very wet by springs issuing

at these lines. Here moisture is kept all the year round, and frequently the springs are so strong as to trickle out and form rills or rivulets, flowing onward to the rivers, and, in fact, producing them. It seems that when the old lake surface stood for a time at each of these marks, underground courses of the water were established, so as to let the drainage out of the ground at the level of the existing shore line. The process of forming other similar underground courses was repeated as often as the water surface fell and made a new beach. And now, after thousands of years (the lake level having sunk some hundreds of feet lower), these old underground water courses continue to be the grooves in which the natural drainage of the land is discharged to the surface of the ground. Like many people, otherwise well-meaning and estimable, the springs have shown a tendency to get into ruts, out of which you cannot possibly shake them.

Almost invariably at the springs along these lines the Huron aborigines selected their dwelling-places, and got their supplies of fresh water. And, accordingly, the line followed by an old beach in nine cases out of ten becomes the line along which the Huron villages are situated.

Our own ancestors, before the invention of pumps or wells, lived in similar situations. Topley (*Journal Anthropol. Inst.* iii., 34-49) shows that in the southeast of England, "along the foot of the chalk escarpment, where the settlers found good water," there is a line of village communities; and that of 125 parishes along the Weald, no less than "119 belong to villages situated at the foot of the escarpment." Let nobody make this resemblance a proof of the identity of our own ancestors and the Hurons, or of the Anglo-Israel and the Indian-Israel theories. Nor need anyone anxious to promulgate some new theory imagine he sees in this circumstance the effects of European (French) influence on Huron customs. To settle near where fresh water was to be found was an indigenous custom among the Hurons. Human needs are much the same in all ages and countries, and will compel widely separated races to act alike under similar conditions.

That strong beach known as the "Algonquin" furnished many of the Huron villages in Medonte and elsewhere with their water-supply. More than a fifth of the villages are beside it, while nearly all the others are found in close proximity to higher beaches. In this township the "Algonquin" is about 250 feet above the present level of Georgian Bay. The extinct lake which formed it, as well as its higher-level predecessors, washed through each of the channels between the four ridges, the latter having been islands in these old lakes. They rise to a considerable height in some places—at one place on the Gloucester road, near the Township Hall, the top of the ridge is about 530 feet higher than the Coldwater River. With the fall of the "Algonquin" Lake's surface to a lower level (or better, with the rise of the land), the channels between the "islands" became dry, and it is only in the Coldwater valley that the beaches

of the succeeding Great Nipissing series make their appearance. These do not run much farther up the valley than Hobart.

Still further, in the absence of good contour maps of the district, such as the Ordnance Survey maps of Great Britain, these beaches, if mapped, will serve as altitude lines. They are easily observed, and their altitudes may be readily taken by means of a pocket aneroid. No large sum of money, therefore, need be expended for level-surveying; in fact, levelling instruments are not even required to get the contours. In a limited area like a township, where the effect of uplift on the beaches is insignificant, they become, in short, natural altitude lines, the marks of which are permanently on the ground itself.

Accordingly, for the purpose of showing the intimate relations between the raised beaches and the village sites, as well as for recording the altitudes of the different parts of the township, I have adopted the plan of mapping these beaches, as in the Report on Tay. It is not easy to indicate profile on a flat map as clearly as one might wish. In making a choice of graphic conventions for showing beaches, a slight change is made upon the symbols used in the Tay Report. For the "Algonquin" beach the heavy curving line is omitted for the sake of simplicity, and shading is alone used, such as map-makers generally use when hills or other kinds of relief are to be shown. Similar shading shows, in the order of ascent, the next strong beach (probably a tidal one, as its appearance indicates), at about 110 feet higher; and likewise the strong beach about 230 feet above the "Algonquin." The latter occurs only on the Mount St. Louis ridge, and along the southwest part of the township. The lower beaches of the Great Nipissing series in the Cold-water valley are less intimately associated with Huron sites than in Tay, and I therefore omit them from the map, so as to avoid the multiplication of details.

THE SHORELINE OF 1649.

It is safe to assert that Champlain and Brebeuf landed among the Hurons on a beach that is now high and dry, the surface of Georgian Bay being many feet lower in our time than in theirs. At Ste. Marie on the Wye, one of the most prominent features of the ruin is its system of artificial trenches, or what the English translator of Isaiah might call its "brooks of defence." The visitor must have observed how these are now entirely destitute of water, the river being many feet below, and incapable of filling them. When the writer measured the amount of this drop (September 13, 1901), it was ten feet from the surface of the river to the top of the bank, where the main trench enters. The brow of this bank has probably suffered denudation, and the fort itself is now more than forty yards distant and on slightly higher ground. Hence it would appear to require at least twelve feet of a rise to completely fill all the empty trenches.

The surface of the Wve in this part of its course, viz., between Mud Lake and Georgian Bay, a distance of about a mile, has the same level as that of the bay itself. When the surface of the bay rises or falls with any change in the direction of the wind (and here the wind exercises a great influence over the level in the long arms of Matchedash Bay), a current is set up. It flows inward or outward according to circumstances, and locally is called a "tide." Accordingly, our measurement of the fall of the river by twelve feet, since the fort was abandoned in 1649, also holds true of the surface of Georgian Bay itself.

A similar measurement of the drop is obtained from Ste. Marie on Christian Island, which was also built upon the shore in 1649, but is now quite high above the present shore.

This lowering of the water does not seem to have occurred suddenly. Fully one-third of it took place in the nineteenth century. There are persons living who remember the time when the bay level was four feet higher. Due allowance has to be made for the direction of the wind and for the time of the year at which the observation is made, as it appears to have become subject to greater fluctuations with the seasons after the surrounding land began to get cleared. But, making every allowance, a decline of the level within the memory of living persons is well established.

Since Bayfield's survey of Georgian Bay, about 1820, the fall of level to the present time has been estimated at four feet six inches, and various portions of land, which were islands then, are now, at all seasons, parts of the mainland*

The Ojibway land surrender of 1798 became the townships of Tiny and Tay. The southerly boundary of this tract (which is also the northerly boundary of Medonte) appears to have been measured from the head of Coldwater Bay across the peninsula to Nottawasaga Bay. This information furnishes us with the means of knowing where the head of Coldwater Bay was fixed at the time that survey was made. But to-day the bay head is about a mile farther north. The land in the Coldwater valley is quite low for a long way up—only a few feet higher than the present bay level; and we are thus shown how far the bay recedes down the valley with a fall of about four feet in eighty or ninety years. A full consideration of this question of the old water level, from the foregoing sources of evidence, accordingly becomes important in connection with the northeast corner of Medonte. Taking into account all the facts in the case, it is not easy to escape from the conclusion that in Huron times, when the level of the water was twelve feet higher, the head of Coldwater Bay was about three miles up the valley (i.e., about two within Medonte.)

The higher shore line of 1649 would necessarily be, in many other places, more deeply serrated with long bays than the present shore line; and this circumstance supplies an explanation as to

* I am indebted to C. E. Newton, Esq., of Victoria Harbor, for having called my attention to this circumstance.

some features of Ducreux's map, which was published in 1660. It is really a map of the old shore line, and it would be difficult to identify it with the existing beach, even after making due allowance for the probable lack of any actual survey on the part of its makers. There is much discrepancy, at any rate, between the prolonged Coldwater Bay, as shown on that map, and the actual Bay on maps of our day; and there is nothing unreasonable in supposing that the difference arises from an extension of the Bay three miles farther up the valley.

The conclusion thus reached suggests a query as to the seeming eccentricities of some other early maps of our lakes and water-courses, especially maps of any small area prepared with minuteness of outline. May not their deviations from modern contours be partly due to the change of a few feet in level, rather than wholly to blundering of the draughtsmen?

Some further circumstances of less importance, but still having a bearing on the subject of the water level, deserve notice. In Tiny and Tay, as also at Coldwater, amongst remains of the aborigines found lower than the old level of 1649, and near the present shore line, Lorraine or double-barred crosses are usually found. These belong to the period after 1715, and therefore cannot be classed as Huron relics. In these low parts, also, there is an absence of French axes of the seventeenth century. The latter is purely negative evidence, and we should be lacking in scientific caution if we accepted it as proof of the wider extension of the waters in Huron times, especially up the Coldwater valley. But it has its due significance, and is worthy of note.

The writer is unable to say that he has observed shore line markings at exactly 12 feet above the present water level. But a raised beach (the lowest to be seen) can be observed around Victoria Harbor at about 18 feet above the present level. And in the Coldwater valley, also, I observed marks which I measured at about 20 feet above. It is doubtless the same raised beach in both localities, the small difference of two feet in the measurement being probably due to uplift. Is this the shore line of 1649? As the water surface here is raised many feet during every storm from the northwest, one might have some inclination to identify them. It is more probable, however, that the 18-foot beach belongs to a century before the Hurons, and that few or no markings survive of the beach of 1649. Then, as now, the surface was perhaps slowly falling. The subject is one of much interest, as well as value, and deserves to be carefully worked out. From the various phenomena referred to in connection with the raised beach at 18 feet and the parts below it, some idea of age can be formed. It serves as a chronometer, about three centuries having elapsed since it was occupied by the water; and it gives promise of being a geological timepiece of some value, affording us an idea of the long lapse of time since the higher raised beaches were formed.

OTHER PHYSICAL FEATURES.

Other circumstances, besides the division of the township into four natural parts or ridges, had their effects upon the distribution of Huron population. As I pointed out in the report on Tay, the Sturgeon River appears, from the abundance of Huron remains near it, to have been thickly inhabited on both sides, and the same abundance is found in Medonte as well as Tay. This result agrees with Ducreux's map, which marks a chain of villages along the easterly side of the river. Perhaps the thick population here was due to the good beaver-hunting and the fishings along the river.

It is said that when the first settlers came to Medonte the Sturgeon River was well supplied with fish, among which were doubtless the sturgeon, otherwise the river would have received some different name. But the brushwood and fallen timber was afterward cleared out of the stream, and sawlogs were floated down from the Clipper Mill, in Concession V. This checked the fish from increasing. Besides, there are now two mill dams in the river, which further reduce their numbers. The consequence is that bass, catfish, perch, sturgeon, and pike are seldom or never caught in the river; only a few large brook trout and grey suckers are found. Beaver marshes are to be seen along the river, which show the presence of beavers in former times, and which may also partly account for the preference the Hurons had for it.

That a greater number of sites face the Sturgeon River than the Coldwater is perhaps accounted for by the fact that the Coldwater has no beaver marshes, so far as I can learn, and certain kinds of fish have not been plentiful in it. This might be because of the coldness of the water, but I cannot say positively. Still further, the hills that face the Coldwater are generally steeper than those facing the Sturgeon, and there are fewer spurs that could be used as dwelling places—considerations that might have had some influence on their choice.

In concluding our general survey of the physical features, and their bearing upon Huron occupation, it should be added that from the three main valleys there run lateral gullies, at the heads of which villages were often located.

No rocks are exposed anywhere in the township, but steep cliffs of boulder clay often confront the traveller. In some places there are patches of boulders, though probably none of these are so extensive as the patches in Tay.

The hills of Medonte (for which the township is noted) have been the cause of many deviations in the public roads, which have had to be deflected in order to avoid the steep places. Further deviations are due to "jogs" or irregularities in the survey, which probably arose from the same cause, viz., its hilliness. In a number of places some of the roads are still unopened owing to the practical difficulties in road-making across swamps and over hills.

At these places the road allowances are marked on the map by dotted lines.

All the roads are marked on the map, by means of which the reader can adopt a scale of measurement for any distances he may require to know. In that part of the township called the Old Survey, which consists of Concessions One and Two, the sideroads are placed at every fifth lot, and are a mile and a quarter apart (100 chains). The lots number from south to north, beginning with No. 41 at Craighurst, and ending with No. 75 at Waverley. In the First Concession they are a mile and a quarter deep, but those in the Second have a depth of only one-half of that amount. Concessions Three to Fourteen make up the New Survey. These are five-sixths of a mile wide (66 2-3 chains), and have sideroads at every fifth lot, or a mile and seven-eighths apart (600 rods). The lots are numbered from south to north also in the New Survey, running from No. One to No. Twenty-four.

It would be confusing to use numbers for the "lines" or roads between two concessions, as the usage of the settlers in Medonte differs from that of many other townships. They give the number of a concession to the line after it, and not to the one before it, as in so many other townships.

WHAT HURON TRIBES OCCUPIED MEDONTE ?

Although there are four clearly-defined ridges in the township, occupied by four groups of villages more or less distinct from each other, it is improbable that they represent as many distinct Huron tribes. The Jesuit Relations frequently divide the whole of the Hurons into Attigneaouentans, Ataronchronons, Attignenonghacs, and Arendaronons. In our formerly published reports, we found that about the middle of the historic period, viz., about 1640, the first of these—the Attigneaouentans or Bear people—lived in Tiny; and that the Ataronchronons lived in Tay. The result of our present enquiry is to find that the Attignenonghacs or Cord people lived entirely within Medonte, and that a few villages of the remaining subdivision—the Arendaronons, or Rock people—occur also within the township.

In any attempt to assign these tribes to particular parts of the district, it will be well to emphasize the fact that such attempt can only apply to a time about the middle of the historic period, 1615-1650, say 1640. At one time or other each of the four tribes probably passed over or sojourned in Medonte, leaving their relics strewn over the ground, and their village sites for our entertainment or confusion. In the beginning of the historic period, Champlain (whether from omission on his part or because there were no others in the district at the time), mentions the Bears as the only tribe in all the district. But later writers distinguished four principal tribes. Some give their names as above, while others give them as the Bear, Wolf, Hawk, and Heron people. The latter was evidently a classification of them into clans rather than into tribes.

But their villages might have been loosely, or in some general way, occupied by families having the same totem, and thus there would be some correspondence between tribes and clans. If we try to get any light on the geographical position of the clans from the distribution of their totem pipes (bears, wolves, hawks, and herons), we fail, so far as I have collected any evidence on this point. I have found that the different kinds of totem pipes are spread over the district without regard to any particular locality. Some day, however, by a closer scrutiny of this feature, a numerical preponderance amongst these pipes may be found which will throw new light upon the subject.

Even about the time in question the lines of demarcation were not so sharp as we might expect. On Ducreux's map, which gives the positions of the missions as they were about 1640, those along the east side of the Sturgeon River are given as follows:—"S. Joannis, S. Joachimi, Arethsi, S. Ignatii." These are obviously situated on a single ridge—the Mount St. Louis ridge, which extends into Tay. And it is to be observed that these missions, although on the same ridge, belonged to no less than three of the tribes. The Relation of 1640 informs us that St. Jean (S. Joannis), which should be distinguished from St. Jean Baptiste, was among the Ataronchronons, who doubtless lived in Tay; that St. Joachim was among the Arendaronons; and that St. Ignace was among the Attignenonghacs. Notwithstanding this apparent want of correspondence between tribes and ridges, it is probable that the Attignenonghacs were the occupants of the greater portion of the Mount St. Louis Ridge and of the whole of the Vasey and Waverley Ridges, for a considerable period.

On the margin of high land along the south side of the township, which we have called the Coulson Ridge, beginning at the south-west corner, and for some considerable distance along this ridge, there were not enough villages, so far as our enquiries have yielded any results, to enable us to arrive at any definite conclusion as to the kinds of Hurons that occupied them. In these parts, perched on tables or terraces around this high ground, which extends into Oro, were five villages of early date: Nos. 49, 50, 51, 52, 53. They show features similar to those of the adjoining parts of Oro, which were perhaps early villages of the Attignenonghacs.

POSITION OF THE ARENDARONONS OR ROCK TRIBE.

To determine the position of this important branch of the Hurons is not so easy as might first appear. Their more probable abode, at least of most of their villages, was in northeastern Oro, in the vicinity of Bass Lake, where a large number of village sites have come to light. This was the view advanced by the writer in some notes in the Burrows Reissue of the Jesuit Relations, and nothing has since transpired that would demand any change of this opinion. The remains found in Medonte near Fairvalley and War-

minster were perhaps of outlying villages of the same tribe, which extended northwestward to the Mount St. Louis Ridge, as we have just seen. But the early Algonquins, among whom the mission of Ste. Elizabeth was established, were also near, if not within the township. The exact position of the latter, however, cannot be determined without an exploration of the adjacent Township of Orillia, to find any differences that might exist between their sites and relics, and those of the Hurons.

THE VILLAGE SITES.

In making these notes in the field and bringing them together for the descriptions of the 75 village sites, some disadvantages have been met with. It is probable that the numerous changes of residence among the settlers of Medonte have resulted in limiting my resources of information,—arrivals and departures having taken place quite frequently on almost every farm since the land began to be cleared. And my promiscuous or disconnected methods of enquiry from the present occupants have doubtless prevented me from learning of many more. Hence one-half of the places where Huron aborigines had camped may still be left unrecorded.

But our survey of the township, which is thus avowedly so incomplete, probably includes the more important sites, and especially the bonepits, which are almost always well-known, and the topics of general conversation. Enough has been done to show the distribution of the villages along the borders of the ridges where these meet the valleys, the courses of the Huron trails, the places of thickest population, etc. Briefly, a collection of data has been formed that will be useful in taking a first step toward an improved view of the Huron occupation of this township, and indeed of the district generally.

In the descriptions of the sites, much of the material is the result of my own observations. Some of the statements, however, are necessarily made upon the oral testimony of persons untrained to observe, or what, so far as I am concerned, was "hearsay evidence." It is in the nature of things for all evidence to become "hearsay" with each remove from its source. But so much information has already been lost that even going over the ground as a reporter would do and noting interviews should be received with satisfaction, as it is in many cases the best that can now be done for the subject. This portion of the notes is thus quite as reliable as newspaper literature, and, indeed, more so, because it has been carefully sifted. Every effort has been made to keep a sure footing on the ground of ascertained fact.

The usual signs of a village are the ashbeds and blackened patches where the cabins stood, and over which the ground is strewn with fragments of pottery, with other fragmental deposits of domestic utensils, and occasionally a whole relic. In view of the fact that ashes check the decay of organic matter, it is possible to understand why black patches mark the spots where the lodges

were erected. Nearly the whole ground of a site would become black from the offal, etc., of the villagers. But decomposition would soon restore its first color to the soil, and in the opinion of the writer the ashbeds have been the cause of checking this decay in patches. In other words, the progress of decomposition was arrested wherever ashes were strewn amongst the organic matter. Calcined fragments of wood are also very durable, but they do not fully account for the extensive patches of black ground found at every site.

The village sites are distributed on the four ridges, as follows:—Waverley Ridge, 7; Vasey Ridge, 14; Mount St. Louis Ridge, 27; Coulson Ridge and adjacent parts, 24; in the lower half of the Coldwater Valley (of recent dates), 3. On the high central Mount St. Louis Ridge, villages were more numerous, and population appears to have been thicker, than on the other ridges. But it should be borne in mind that these seventy-five villages were not all occupied at the same time. Our plan of numbering and describing them is to begin at the northwest angle of the township and take each of the four natural groups in succession.

It has now been made sufficiently clear that the favorite dwelling-place of the Hurons was on the hills, nearly always at an old beach where abundance of spring water could be had. Besides the better security to be found in hilly situations, there was, perhaps, something in the nature of the Huron races themselves that required their settlement on hills where the soil and the air were both drier than on the low ground. They always selected for their sites porous or sandy loam with natural drainage. The habitat of the Hurons upon the hills of Medonte and adjoining townships was thus well pronounced in its type. It differed widely from that of another earlier Indian race in parts of the same district, and was in striking contrast with the latter, signs of which occur especially along the lower waters of the Nottawasaga River, near Georgian Bay, the remains of the two races, however, being placed favorably for comparison.

The Huron villages were of all sizes. Those at which bonepits occur were generally large. When compared with the villages of Europeans, or even with those of modern Indians, the large populations in Huron villages appear to have been huddled together in an extreme degree. The largest site, No. 26, covered a space of about 15 acres; and as I have explained in the description to be found on a subsequent page, it was probably St. Joseph, which was alleged to contain 400 families, or at least 2,000 souls, at the time of its surprise in 1648.

Some of the villages were doubtless palisaded, but no traces remain of embankments, and it would require much examining with the spade to find the palisade of any particular site. This was not attempted by the writer in any case. But palisading may often be inferred from the position of the site on an isolated hill or on a spur. We cannot think the precaution of selecting a na-

turally fortified position would be taken without the construction of the palisade itself. Amongst the villages that in this way prove to have been palisaded were:—Nos. 3, 11, 22, 23, 24, 25, 26, 33, 35, and 53.

Earthworks, in the special sense of the word, are entirely absent. But embankments or trenches of a fragmental kind are mentioned under Sites Nos. 26, 32, and 37. And as iron relics are found at all three places, it is not improbable that early French missionaries or traders had something to do with their construction.

The metal portions of articles that the French traders brought to the district, or that Hurons visiting the city of Quebec procured by bartering furs, are found in abundance. Conspicuous among these is the iron tomahawk, which has been found in thousands. Such metal relics are definitely reported from 55 of the villages herein described, or 73 per cent. On passing from the three northerly ridges to the southerly one, iron relics cease to be so plentiful in the latter ridge as in the former. This greatly decreased proportion makes a distinctive feature, that deserves to be carefully noted.

The usual kinds of stone, bone, horn, shell, and pottery relics, usually found on aboriginal sites everywhere, are common here. But it cannot be denied that, in comparison with village sites of some other races of Indians, more especially with those of earlier date than the Hurons, their sites are not so prolific in relics, nor are their patterns so luxurious, as the large population would lead us to expect. It is extremely desirable that persons who collect relics should carefully record the exact site where each relic was found. It is only in this way that relic-hunting is of any value as an aid to history, here or anywhere else.

TEANAUSTAYÉ, OR ST. JOSEPH (II.)

It should prove interesting to scrutinize the village sites, and seek to identify this mission—the scene of the massacre of Father Daniel and a large number of Hurons in 1648. If a person desires to form some idea as to where it ought to be located on our modern maps, and, taking Ducreux's map as a guide, were to select a spot, in all probability the spot chosen would prove to be at some village site, there are so many. Another chance, however, is that the spot would be in a swamp, where no actual sites occur. Thus, so little is to be gained from Ducreux's map, that almost all we can infer from it is that St. Joseph (II.) was somewhere northwest from the sources of the Coldwater River. It could not have been in the low ground, near the river, because, as we have just seen, the Hurons avoided low ground for their dwelling places. Hence, it was likely one of the villages on the Mount St. Louis Ridge.

The Jesuit Relations furnish us with some collateral evidence of its distances from points whose positions are known more or less definitely. It was seven or eight leagues from Ihonatiria (Relation, 1635, Quebec Edition, p. 39), which was somewhere near the north

end of Tiny Township. It was a league and a quarter (Relation, 1639, p. 72) from Scanonaenrat (St. Michael), which was sometimes classed as an Attignenonghac village, like St. Joseph (II.) itself, and which was immediately north or northwest of Orr Lake. It was five leagues from Ste. Marie on the Wye (Relation, 1644, p. 76), the position of which is exactly known.

Taking into account that there were many windings in the trails, and that measurements of distances would follow their meanderings, the foregoing data lead us to the conclusion that it could not have been farther south than the Mount St. Louis Ridge. The Coulson Ridge would be too far south. A scrutiny of the villages upon the Mount St. Louis Ridge shows that No. 26 was the largest and most probable site.

Father Martin showed such good judgment in all questions relating to the sites of the missions, when we consider what were his opportunities fifty years ago, that it is worth while taking into account his opinion as to the position of this mission. In the appendix to his "Life of Jogues," he tells us that "Ducreux's map and historical references seem to indicate as its site a point now called Irish Settlement, in the north of Medonte District (township). Traces of a large Indian town, and especially fragments of coarse pottery, are found here." Father Martin means, of course, the Irish Settlement around Mount St. Louis, and in particular the Fitzgerald site (No. 26), as I have definitely learned from John P. Hussey, who accompanied him while he was in this neighborhood in 1855. Dr. Tache also believed at one time that Fitzgerald's site was St. Joseph (II.), according to Cornelius Frawley, who worked with him during his archaeological excursions. But from the map he supplied to Parkman at a later time for the "Jesuits in North America," he appears to place it farther south. The only evidence at hand, therefore, goes to show that Tache's opinion, at the best, was vague and unsettled.

THE FOREST TRAILS.

A trail ran along each of the four ridges, and another crossed them transversely, connecting with the four ridge trails, as the trunk of a tree with its branches. We shall call the transverse one the Main Trail. From the positions of important villages, from the finding of isolated relics along the lines of travel, from the fact that they have been kept open till recently, and from the topography, we are able to lay down the positions of all these trails with some accuracy. In our survey, village sites have been found in sufficient numbers to show where the centres of Huron population were located, and how they were placed in relation to each other; and therefore, if these afford any evidence, how the trails ran. The occurrence of different kinds of forests, too, compelled the Hurons to select and follow routes along the highest parts of the ridges, where the woods were open, and free from underbrush. In the low ground of the valleys, evergreen thickets checked their progress.

The four ridge trails were :— (1) The one to Victoria Harbor, (2) the trail on the Vasey Ridge, (3) the Gloucester Trail, and (4) the Coldwater Trail. Modern Indians followed all these routes; they were Ojibbeways, but they kept open the forest trails of the Hurons until recent years, as I have already pointed out in my Reports on Tiny and Tay.

THE MAIN TRAIL.

This crossed the valleys from one ridge to the next at the narrowest places. It appears to have entered Medonte about lot No. 73, Concession I., having followed the Waverley Ridge from villages in Flos and Tiny, which have been described in my Report on the latter township. This trail, with its extension to the Neutrals, was doubtless the one laid down on some early maps as coincident in a degree with the modern Penetanguishene Road. After following the Waverley Ridge, the trail crossed to the Vasey Ridge, near site No. 7, under which a description of the crossing may be found. It soon reached a huckleberry marsh, around which Hurons swarmed in great numbers, as the remains indicate; then dipped down into the valley of Sturgeon River, which it crossed near Site No. 13. It reached the high land of the Mount St. Louis Ridge, near Site No. 26, which I consider was Teanaustaye, or St. Joseph (II.). From this place its course is not quite so evident. Yet, one of its branches, beginning near this village, is known to have proceeded to the Neutrals. And it is to be noted further, that if we continue the trail as we have laid it down to this place, that is, carrying the line forward in the same direction, and passing Sites No. 52 and No. 53, to the south side of the township, it will reach a group of important villages in Oro, where bonepits were numerous, and where the ridges run chiefly at right angles to those of Medonte, and in a line with this Main Trail. No other important group of sites lies to the westward of these, and it is, therefore, probable that the line we have thus drawn, was the leading course taken by the traders and missionaries when going from St. Joseph (II.) to the Arendaronons, and particularly to St. Jean Baptiste. On this view the Coldwater River would be crossed at lot No. 5, about the line between the Fifth and Sixth Concessions, and this place proves, on inspection, to be a good natural crossing. The ground, higher than the "Algonquin" beach, makes its nearest approach to the river at lot No. 8, Concession 5, on the north side; while on the south, the foot of the high ground, known as Leith's Hill, is at the boundary between lots No. 4 and No. 5. At the river itself, in lot No. 5, there is the good crossing-place just mentioned, cliffs of sand facing it on both sides. The latter are the sides of a canyon, about 50 feet deep, through which the river here flows, or, perhaps, of a passage made narrow at this place by an extensive sand-spit, washed from the base of the high ground immediately to the northwest. Here the Hurons would find their most convenient crossing, and future research will no doubt prove

that they used this. There was at least one crossing west of this one—viz., on the trail leading to the Neutrals; but the wooded nature of the district through which it passed also prevents research for the present. As to crossing farther east, there might have been one in the vicinity of Hobart. Modern Indians have camped near the present Hobart School (lot No. 10, concession 7), and we are so accustomed to find the recent tribes following the trails of the Hurons that the circumstance is noteworthy in connection with our search for the old crossing-places in this valley. There are three sites on an isolated hill in the line of a trail at Hobart. Lower down the Coldwater Valley the land becomes deeper and wetter than at Hobart or any place westward. But in the vicinity of Eady, near the head of the Coldwater Bay of that day, there appears to have been another crossing. Here the valley was again constricted, and thus more suited for making a journey through it. And on the west side, old maps show an early road going up through lot No. 17, to the Gloucester Road, doubtless following a trail. The Relations furnish some evidence of a crossing here or at Hobart, as Father Martin, in his "Life of Jogues" (Appendix A), points out that Taenhatentaron, or St. Ignace (I.), was on the route between Teanaustaye and Cahigue. (See Site No. 48).

THE TRAIL TO VICTORIA HARBOR.

This followed the Waverley Ridge, and has been already mentioned in my Report on Tay (p. 22). As very little of it lies in Medonte, it need not occupy our attention any further.

THE TRAIL ON THE VASEY RIDGE.

This passed along the ridge from Orr Lake to Victoria Harbor, as I pointed out in my Report on Tay (pages 22 and 32). But the evidence before us goes to show that the trail, as followed by recent Indians, was a little west of the old route, at least in some parts of its course. Huron sites occur in sufficient numbers on this ridge to enable us to lay down approximately its course in early times. It joined with the Main Trail near the huckleberry marsh described under Site No. 11, where, as I believe, there was an important Huron centre for many years.

THE GLOUCESTER TRAIL.

This ran to Gloucester Bay, an old name of some part of Matchedash Bay. It was opened as a Government Road about 1832, and the Gloucester Road became the leading highway through Medonte in the early years of its settlement. But it is now closed, except for two miles between Mount St. Louis and the Township Hall. Along this part of it, many signs of Indians, both early and recent, are to be found; old tappings, said to have been made by them, are still visible on maple

trees in Mr. Barr's bush (see Site No. 33). The trail was near the southerly side of the ridge, because here they found the land was higher in most places.

THE COLDWATER TRAIL.

This ran from Orillia to Coldwater, and was opened out as a Government road in 1830. It has been used chiefly by the Algonquins, running independently to Matchedash Bay, and was not directly connected with the trail system of the Hurons.

BURIALS.

In Medonte, these do not consist altogether of bonepits. Single graves among Hurons, at least in this township, appear to have been quite common. Patches of such single graves occur at the sites numbered 1, 2, 3, 4, 5, 6, 12, 13, 19, 26, 27, 29, 31, 35, 36, 37, 41, 49, 51, 64, 68, 69, 74. With almost every bonepit in the township there is associated a patch of these single graves. These are small, round pits; and a dead body, in order to fit one of them, must have been drawn up into a heap,—“the crouching posture,” as it is usually called, whether correctly or not. This is a distinctive character of Huron burials, at least those in the township whose remains are the subject of our present enquiry. These Hurons appear to have buried in the single graves first, in summer at any rate, and then transferred the bones to the large communal pits when a Feast of the Dead was called. It may be that the mode of burial indicated here was more common with the Attignenonghacs than with the other tribes, as the sites mentioned above lie chiefly in their territory. We found scarcely any single graves in Tiny and Tay (see my Reports on these townships). There were few, or they did not force themselves upon our attention.

So far as I can learn, there were no burials in mounds among these Hurons.

. DESCRIPTIONS OF THE VILLAGE SITES.

I.—THOSE ON THE WAVERLEY RIDGE.

1. On the east half of Lot 74, Concession 1. John Scarlett. Iron tomahawks, clay pipes, pottery fragments, stone axes, etc., have been found at this site, which, with the four following, is on the highest ground in this part of the township. The indispensable supply of spring water was easily obtained from an old (though still water-bearing) beach, 110 feet above the "Algonquin." The most noteworthy feature of the site is a collection of shallow pits, or holes, in the ground. John Bell, of Waverley, estimated their number at 50, and regarded them as "warrior-holes." John Bannister, of the same place, made a similar estimate of their number. The latter, in company with a young doctor, dug into and examined one of these holes, and got a few burnt human bones. There are indications that they had been used for temporary sepulture, awaiting removal of the bones to some larger pit as soon as a "Feast of the Dead" should take place.

2. On the northeast quarter of Lot 73, Concession 1. W. H. Scarlett. Single graves, or empty caches, occurred at this site, confined to a patch of about two acres. Ashbeds were also to be seen, at which iron tomahawks and other relics were found, especially during the term of Daniel Day, who occupied this farm some years ago.

3. On the southeast quarter of Lot 73, Concession 1. T. Morrison. Iron tomahawks, beads, grains of Indian corn (carbonized with age), etc., have been found here. There were from 100 to 200 holes in the ground (similar to those described under the preceding numbers), some of them arranged in rows and cross-rows. These, or at least some of them, were probably graves of temporary use, as the finding of human bones is reported in connection with them.

4. On the northeast quarter of Lot 72, Concession 1. Robert Brown. Many iron tomahawks and other relics have been found here. Two clay pipes were given to Dr. R. W. Large, in 1892, and when his collection went into the Provincial Museum in 1897 these were included, and now appear as No. 16,719 and No. 16,720. (See 10th Archaeological Report, page 9). A cornpit was found at this site, and also shallow pits in the ground, similar to those described under the preceding numbers. One observer remarked that some of these were arranged in a circle. The abandoned beach at 110 feet above the "Algonquin" comes into the east end of this lot, and is water-bearing, and marshy here. The camps were situated on the high ground beside it, and were thus convenient to a supply of fresh water.

5. On the south half of Lot 72, Concession I. John Tweedale. Relics of various kinds, including iron tomahawks, have been found at this site. Enquiry at the next farm southward brought out the

fact that no relics occur on it except a few iron tomahawks, which have been found here and there, but do not indicate any village site. Tomahawks of this kind are frequently found on almost all the farms in this neighborhood, and are generally turned to various uses by the farmers. Since the advance in the price of iron, they are sometimes even sold to the scrap-iron dealers, who make regular visits to all the houses. The quality of the iron is first-class, belonging as it does to the period of French rule, 1615-50.

6. On Lot 69, Concession I. The west half of this lot was the original Archer homestead, and has been occupied for three or four years by Wm. Archer, jr. What appeared to be a small Huron burial ground, consisting of a few single graves, occurred at this site; but wherever there was any sign of a grave, curiosity-seekers had dug into it several years ago. The site extends into the east half of the lot, owned and occupied by Thos. McDonald. A few human bones and relics, including iron ones, have also been found on this part of the lot. The McDonald family settled here about 1860, and one of the members of the family (Mrs. Conlin, of Orr Lake) informed me that in the years immediately following their settlement they found a stone chisel, besides many pottery fragments and iron tomahawks. A small stream rises out of the "Algonquin" beach, near the site, and the "110 foot" beach also comes into the farm.

7. On the west half of Lot 68, Concession I. John Archer. (Edward Archer, sr., Hillsdale, being the owner). Iron tomahawks in considerable numbers have been found at this site. We have now reached the southeasterly corner of the first ridge. Between this and the next the land is flat and more or less swampy, the "Algonquin" beach passing through the narrow gap between the two. Within this lot, and near the site under consideration, is the narrowest part of the gap; and here, at the southerly end of it, there is a long gravel spit, or bar, built out across the old channel by the waves of former days. This bar is the watershed that divides the drainage of the Orr Lake district from that of the sources of one branch of the Hogg River; and along it (clearly because it gave the driest footing), the main trail of the Hurons seems to have passed, going from the higher ground, whose sites we have just been describing, to the next ridges.

II.—SITES ON THE VASEY RIDGE.

8. On the east half of Lot 71, Concession 2. Thos. Jones. The occupants have found stone and iron axes, pipes, beads, arrow-heads, etc., at a small site here, consisting of three or four patches of camps south of the dwelling-house. It is situated on a flat area on a very high hill. On almost every farm hereabout iron tomahawks have been found. Although the position of this village bears some resemblance to that marked Caldaria on Ducreux's map, it was, perhaps, too small to be a mission village.

9. On the northeast quarter of Lot 18, Concession 3. John Gawley. Many relics, especially pipes and iron axes, have been found here. On every farm adjoining this one, scattered relics, more particularly iron tomahawks, have been found.

10. In the line of the main trail a huckleberry marsh occurs on Lot 65, Concession 2, with its outlet toward the Sturgeon River. The trail probably passed on either side of this marsh, as Huron remains are abundant on both. On the northeasterly side there is a site on the west half of Lot 17, Concession 3. Franklin Bell. Villars Cripps was one of the first occupants of this farm, and found pottery fragments, pipes, iron tomahawks, etc., in abundance, especially when he cleared that part of the land on which the village was situated.

11. On the west half of Lot 16, Concession 3. Samuel Martin. On a hilltop which faces the Sturgeon River, and which occupies an angle on the westerly side of the outlet stream flowing from the huckleberry marsh, mentioned under the last number, pottery fragments and other relics, including iron tomahawks, have been found. The ashbeds of the camps are distinct. Gen. John S. Clark, of Auburn, N.Y., has called my attention to the fact that several names of Huron villages probably signify "lake," and he includes "Caldaria" of Ducreux's map in this class. He has partly worked out this idea in a valuable article on the word "Toronto," in the Ontario Archaeological Report for 1899. On this view of the meaning of the word Caldaria, I venture to give the opinion that one of the sites at this small huckleberry lake, or perhaps all taken together, is the one indicated by Ducreux. Numerous remains, which are chiefly assignable to the French or historic period, are (like those around Lannigan's Lake, in Tiny Township) quite frequent at this small lake, which is now almost dry.

12. On the east half of Lot 16, Concession 3. Its position is below the hill made by the "Algonquin" beach. Remains occur here beside the stream that flows out of the huckleberry marsh mentioned under the preceding sites. Iron tomahawks have been found, and some shallow pits were to be seen. A few of these were examined by two men, who formerly lived near the place. They found a few human bones.

13. On the east half of Lot 15, Concession 3. Duncan Barr and Chas. Todd. There are ashbeds and ashheaps here, near the left bank of the Sturgeon River. Clay and stone pipes, iron tomahawks, pottery fragments, and other relics have been found. On the same lot some shallow pits have been reported, which, on examination, yielded a few human bones. This place appears to have been at or near where the main trail crossed the Sturgeon River passing southeast to the next ridge.

14. On the east half of Lot 18, Concession 4. James Cowden. The usual pottery fragments, pipes, iron tomahawks, etc., have been found at this site.

15. On the west half of Lot 19, Concession 5. Camp sites strewn with many fragments and relics (including iron tomahawks) occur here. The edge of the hills passes through this farm.

16. On the east half of Lot 21, Concession 5. Samuel Hawthorne. Many iron tomahawks have been found on Mr. Hawthorne's land; and on adjoining fields, camps were to be seen at which the same and other kinds of relics have been found.

17. On the west half of Lot 22, Concession 5. Jas. Loney. Ashbeds strewn with the usual fragmentary relics covered a good space here. When the ground was dug for the foundation of the barn some years ago, ashes of the campfires, mixed with fragments of pottery, were found. There are indications that this was a village of considerable importance. The occupants of this farm have found iron tomahawks in considerable numbers. About 1863, when this district was covered with woods, Dr. Tache's workmen dug a bonepit near this place in a deep gulley, but the bones were too much decayed to take up. One of them informed me that they found kettles in the pit.

18. On the east half of Lot 21, Concession 6. Mr. Fallis. Here was found a bonepit of good size, and we are fortunate in having the statements of so careful an observer as Prof. Henry Montgomery, now of Trinity University, Toronto, to give in connection with the pit. Prof. Montgomery examined it in 1870, and again in 1876. In an article in *The Toronto Globe*, of Aug. 3, 1878, he says:—

“One (ossuary) situated on Lot 21, Concession 6, of Medonte, is nearly circular, about 14 feet in diameter, and 8 feet in depth. A great depression was observed in the ground, it was suspected to be an Indian ‘pit’; the earth was removed to the depth of three feet, when an irregularly disposed layer of more or less flattened stones (chiefly limestone) was met with.”

The present writer applied for some further particulars regarding it to Prof. Montgomery, who kindly added:—“I took more than twenty crania from (this) ossuary. . . . I would consider it quite impossible for any person to give you the exact number of crania. I made enquiries from settlers, but received no account of brass kettles having been found in the ossuary. I certainly found none. Nor did I find relics of any other kind here. The ossuary was about fifteen feet in diameter, seven feet deep, and circular in outline. Flat limestones were found over the skeletons. . . . The majority of the crania presented by me to the Toronto University were taken by myself from the ossuary in question.” And again, in another letter, he says:—“With regard to the number of human skeletons (crania. etc.) in the aforesaid ossuary. I would venture to give 300 as a low estimate, and I have always thought there were many more than 300 in it.”

19. On the west half of lot 21, concession 7, John Tinney. Here were found the remains of many camps. At the front of his land, in his garden, and near the road, Mr. Tinney found relics, in-

cluding iron tomahawks, a stone mortar, pottery fragments, pipes, Indian corn (carbonized by age), etc. While doing statute labor on the road near Mr. Tinney's gate a few years ago one of the workmen ploughed up some human bones among the Huron camps. The most notable feature of this site was a group of shallow pits or depressions in the ground, at a short distance from it. My attention was first called to these by James Davis, then of Coulson's Corners. Mr. Davis described them as "rifle pits," and considered them to have had their origin in connection with the war in which the Hurons were engaged. He had traced 140 of the pits about the year 1870, before the forest was cleared. In the year 1889 I made a brief inspection of them, having been guided to the place by Mr. Tinney, who had lived on this farm since 1876. They appeared to be irregularly distributed over the surface of the ground. But what I saw on that occasion, I should hardly describe as pits, although the land had been under cultivation for some years and the appearance of the surface had doubtless changed. The ground was uneven, and made so apparently by artificial means; but the irregularities might have been intended for cornhills, the Hurons having used very large hillocks for this purpose. The pits would thus be the depressions between the cornhills. Prof. Montgomery also noted these, and describes them in the following terms, in reply to my enquiries:—"Not far from this ossuary (see No. 18), perhaps half a mile,—then in the woods,—I found numerous artificial pits. These may be the pits referred to in your catalogue. My recollection would lead me to place the pits I found nearly to the east of the ossuary. . . . They were mere shallow, circular depressions in the ground, but a few feet in diameter. Of the few examined, that is, excavated, most seemed to be barren as to skeletons and relics. But some Indian corn, entirely charred and in perfect shape, was found in one of them. I kept about a pint cupful of this corn in excellent condition for many years."

20. On the west half of lot 22, concession 7. Arthur Cowan formerly owned and occupied this farm. Pottery fragments, a stone mortar, iron tomahawks, and other relics were found in the rear of the farm.

21. On the west half of lot 23, concession 7. A large bone-pit was discovered here in 1869. It was opened in that year by ten men, including the following:—Jas. Davis (who gave me the first particulars of it), David Brolley (deceased), Robert Greenlaw, Jacob Belfrey, Sidney Robinson. They found it contained 440 skulls, besides other human bones; also brass kettles, two swords, iron tomahawks, etc. Many of the skulls had tomahawk or other marks upon them. A large pine tree, thought to be about 300 years old, had grown over the pit. Mr. A. C. Osborne of Penetanguishene informed me that he made some examination of it at a subsequent time. He says it was a large one, and it might have been associated with the village of Mr. J. A. Swan's farm, across the town line, in Tay Township, (see No. 29 in my Tay report), being

situated only about 60 rods south of the Tay and Medonte town line. Mr. Swan gives its position as at the foot of the hill-range; it had 500 or more skeletons, and two brass kettles were found in it.

III.—SITES ON THE MOUNT ST. LOUIS RIDGE.

22. On lot 53, concession 2. Francis Greenlaw. The camps are within, and on both sides of, the lane leading from the road to Mr. Greenlaw's residence, though perhaps the greater part are in the orchard along the south side of the lane. They occupy a plateau, irregularly circular, which I estimated, when I visited the place on May 17, 1901, to have a diameter of about 250 paces or yards. This plateau has a ravine along its southerly edge, and a branch ravine along its easterly edge for some distance. From my inspection of the situation of this village, I concluded that it was probably palisaded, and was important. The usual relics have been found here; but one iron tomahawk has been reported, their scarcity indicating that the site was probably an early one. Nearly all the clay pipes found at this site are of a noteworthy pattern. Clay

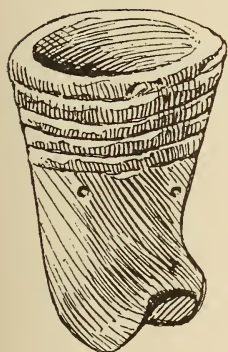


Fig. 30.



Fig. 31.

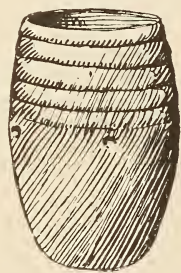


Fig. 32.

Clay Pipes of the Belt Pattern.

pipes bearing this design or pattern—a belt of grooves around the top of the bowl with a line of dots underneath them—are common on the village sites in this part of the township, and on sites all the way to Barrie and even farther south. For the sake of convenience I will call this style of pipe, the Belt pattern. One of the Huron nations, or rather, tribes, was known as the Cord (or perhaps Belt) “Nation,” and as pipes often signified the clan or “nation” of the owner, I am inclined to think this kind of pipe indicated the cord or Belt “Nation”; though, of course, this is a mere conjecture on my part, and must await proof or disproof from subsequent research. (See figure.)

23. On the west half of lot 7, concession 4. Patrick Flanagan. This site is at the top of a very steep hill, 250 feet or more in height, at a distance of several rods southeast from the dwelling house, from which it is separated by a small ravine. Mr. Flanagan, sen., who cleared the land, informed me that it covered about two acres. When they first cleared the ground, there were surface

springs along the raised beach about 230 feet above the "Algonquin," but the water has lowered since the land was put under cultivation, and can now be found only by digging to a depth of twelve feet below the surface. There were thick deposits of ashes, in and near which he found many pottery fragments, pipes, stone axes, a copper or brass kettle (with a capacity of about six quarts), iron tomahawks, bone needles, etc. A pipe bowl found here appears to have been used for holding hematite paint after it had lost its stem.

24. On the east half of lot 10, concession 4. Cornelius Frawley. This village was romantically situated near the top of the ridge, which here attains a height of more than 500 feet above the Coldwater River in the valley along the southerly side of the ridge. Many pottery fragments and other relics were found in the ash-beds here. Mr. Houlihan, who formerly lived on this farm, had many iron tomahawks found at the site.

25. On the east half of lot 12, concession 3. John Macnamara. This site is in the woods, on a peak of land, on which the ground is quite stony. In company with James W. Fitzgerald, to whom I am indebted for much information in regard to the Huron remains of this interesting neighborhood, I visited this site on August 24, 1900, and saw evidences of occupation by early Indians at the edge of the hill, about twenty rods from the road. A shallow pit was noticed, perhaps an empty single grave or cache. On other occasions Mr. Fitzgerald had found many pottery fragments here, and once found a fragment of an iron or steel knife. In the ravine along the south side of the peak, a stream flows at most seasons, and this appears to have been the nearest supply of water for the village. The position of this site on a peak indicates palisading, *prima facie*.

26. THE PROBABLE SITE OF ST. JOSEPH (II).

On the east half of lot 12, concession 4. Thos. Francis J. Fitzgerald. This is the most extensive village or town site in the district. Under the guidance of Jas. W. Fitzgerald I inspected it on Aug. 24, 1900. It occupies a level patch of ground of about fifteen acres, surrounded on three sides by gullies or ravines. Springs rise in the ravines on the north side, and unite to form a stream flowing into the Sturgeon River. Most of the soil on the site is very much blackened, indicating that the village might have been occupied for several years. It is strewn with fragments of clamshells, pottery, bones, and brass kettles, besides burnt stones, etc., while here and there artificial depressions or shallow pits are to be seen. The only cultivated part of the site at the time of my visit was a potato patch, in which the soil was everywhere black and mixed with pottery fragments, burnt stones, fragments of bird-bones, etc. At the easterly side of the village plot—the side that had no ravine—a trench of about fifty paces or yards in length was to be seen lying about N.E. by E., though it was not perfectly

straight, but slightly curved with its convexity toward the north. It was probably situated at the main gateway of the town, which doubtless had a palisade around it. While walking irregularly over the site I counted seventeen refuse-heaps; a very long one (thirty-three paces) occurs at the trench. The stump of an elm tree cut down on the site in 1898 showed 200 rings. A number of relics (chiefly metal ones) have been found at various times. These include iron tomahawks, iron knives and fragments, an iron or steel dagger, and other iron relics, besides clay pipes of varied designs, etc.

As might be expected, the mortuary remains found in connection with so large a site have been numerous. A small bonepit is reported to have been found many years ago on the south side; while near it a number of single graves were also found, and similar ones also southwest of the site. When examined, they yielded only bone fragments, the larger bones of the skeletons having perhaps been removed to some communal bonepit. But the burial grounds and bonepit of this large site was perhaps the Kinghorn pit, on the adjoining farm, and will be found described under the next number.

Before leaving this site, however, it might be well to append the following particulars obtained from John P. Hussey, the oldest resident in this neighborhood:—While Dr. Tache was here examining the Kinghorn bonepit, he also visited the large trench mentioned above. Some large pines grew at the place. Mr. Hussey found a portion of a large earthen pot or "cauldron" in the roots of an upturned tree; about a quarter of the vessel was unbroken. Through Dr. Tache it is now preserved in Quebec City, probably in the Tache collection at Laval University.

The corn patch of this site appears to have been on the rising ground in a northeasterly direction from it, and was quite extensive.

27. THE KINGHORN BONEPIT.

One of the largest bonepits ever found in the Huron territory was found a short way northwest of the last site, and was probably associated with it, but is situated on another farm—the west half of lot 13, concession 4, owned by Patrick Fitzgerald.

In order to get some clear ideas of the situation and surroundings of this pit, which gained, forty years ago, so much notoriety, I visited it on Aug. 24, 1900, along with Jas. W. Fitzgerald, who had formerly lived for several years on this farm. The ground around it is grey till or boulder clay, slightly modified by the action of water, and contains very little sand. The pit is now filled with stones, but it appeared to have had a diameter of about fifteen feet, so far as it was possible for me to decide by inspection after so many years. This diameter is not so great as that of a few others I have seen, but the accounts of eyewitnesses all agree in giving it an unusual depth (about eight feet). Such pits are usually in sandy soil, where digging was easy, but as the clayey nature of the ground here would enable the banks of a hole to stand upright for

a considerable depth, I can easily accept the extra depth assigned to this pit as a real fact. A large elm or maple tree had grown upon the bank of the pit.

At the time it was discovered (about 1856) the land on which it is situated (the west half of lot 13, con. 4) was the property of Richard Oliver, Barrie, father of Dr. L. Oliver of that town. Yet it was known everywhere as the Kinghorn pit, chiefly because the nearest settler then was Andrew Kinghorn, and perhaps also because Mr. Kinghorn, along with one Mr. Ennis, was the first person, as I have been informed, to dig into it.

As to the number of skeletons in the pit, or at least crania, one credible witness estimated 1,000, another 800 or 900, while another reckoned about 500 or 600. It would, accordingly, be impossible to choose any one of these figures as most nearly correct; we shall have to be content with saying that the estimates to which any value can be attached vary all the way from 500 to 1,000.

It contained various relics, besides the human bones. According to Francis Barr, whose wife is the only daughter of Mr. Kinghorn, someone found almost a bushel of wampum beads, besides a brass kettle and three copper ones. One of these kettles is deposited in the Provincial Archaeological Museum (No. 12,996), through the liberality of Major Joseph Rogers of Barrie, an iron handle having been attached to it since it was found. In the Toronto University collection another relic appears. No. 172, in the catalogue before the fire, was:—"Carved bone human figure, found along with red pipe mouthpiece, and piece of copper, in an ossuary in the Township of Medonte—S. Lount." Mr. Lount informed me that this relic was found in the Kinghorn pit. He estimated the diameter of the pit as sixteen feet.

Many persons of note visited the pit while it was one of the seven wonders. Two or three summer parties from Barrie did so in 1859, and some account of their trips will be found in the newspaper paragraphs quoted below. It was visited by Lord Edward Cholmley Dering and Lady when on their wedding tour, probably in 1862. Lord Dering was the eldest son of Sir Edward C. Dering of Surrenden, County Kent, England. John P. Hussey is my authority for stating that the Prince de Joinville was in the Dering party, and that he was making notes while there, but I have been unable hitherto to find any published notes by the Prince later than 1848.

No systematic examination of the pit appears to have been made until it was done by Dr. Tache, who (according to Mr. Hussey) visited this district for three successive autumns (about 1863-5) and examined it the first time he came. He opened it to the bottom, and took away the skulls that had escaped the curiosity-seekers.

The recollections of some of those who lived here in the years when the pit was a noteworthy feature are interesting; so we shall give a few of such as appear to be reliable. John Fitzgerald, sen.,

states that he found as many beads as would fill a pail, in the large pit; also that a piece of buckskin, about two feet long, was found; also a plait of human hair, interwoven with copper or brass. Here and there throughout the pit a burnt bone was found.

Patrick Flannigan, sen., says he saw skulls found in the pit, with sutures of such a kind that from his description I have no difficulty in recognizing them to have been Wormian bones. Such are common in Indian skulls, especially those of Hurons.

Mrs. Barr, whose estimates of numbers are characterized by caution, recollects that someone found half a pailful of wampum beads; someone also found a skull with a hole in it (it was probably drilled, such having been found in other pits). A wolf's head pipe bowl was also found. This is not surprising, as the wolf clan or tribe occupied the district in which this pit was placed, or else some contiguous territory.

Many smaller graves were found around the pit, chiefly by those who cultivated the land. Mr. James W. Fitzgerald, who knew the place well, informed me that he once dug 31 skulls from a small pit a few feet south of the main one; in this auxiliary grave there were only skulls—no other kinds of bones. Mr. Fitzgerald also pointed out some evidences of camps southwest of the pit, but the indications are not sufficient to enable us to arrive at any conclusion, as the relics found at the spot (consisting of pipes, iron tomahawks, pottery fragments, etc.) might have had some connection with the funeral rites of the greater pit. An old shore line, such as might furnish a village, if there was one here, with springs of water, crosses at a little distance north of the pit this west half of lot 13, diagonally. and runs into the west half of lot 12.

About a dozen shallow pits with human bones (mostly one skeleton or part of a skeleton in each) occurred immediately around the large pit. Then at a little distance from it, there appear to have been two other patches of single graves in the shape of shallow pits. The largest of these occurs almost due south from the main pit, on rising ground, or rather, the ground slopes gently away from this patch toward and beyond the main pit. It is partly situated on the same lot, and extends across the line into the adjoining lot 12 (west half). From an inspection of this ground, aided by Jas. W. Fitzgerald, whose recollection of the part under cultivation was of great advantage to me, I tried to make an estimate of the number of these single graves, and concluded that there had been at least forty. Dr. Johnson, formerly of Hillsdale, but now of Toronto, had made an examination of those in the part not under cultivation. West of these single graves and separated from them by some space is the other patch, which is almost wholly in lot 12, just across the boundary from the place referred to as the probable site of camps. Mr. Fitzgerald had estimated about 25 graves here; the ground has been cultivated for some years, and the exact number cannot be now counted.

The following extract from the pen of Dr. L. Oliver of Barrie appeared in *The Barrie Advance* of Aug. 10, 1859. At that time he owned the lot on which the pit was situated, and afterward sold it to George Caswell of Coldwater :—

Ascending the proud, disdainful steep (commonly known as "Barr's Hill"), we gained the Medonte Town Hall, and took an easterly (westerly) direction as far as Peter Riley's, turning north on the line leading to Mr. Andrew Kinghorn's, where the road suddenly ceased. We paid our respects to the old soldier, who received us heartily. . . . After due admiration, felt and expressed by the whole party [which included the county member (Angus Morrison), also Mr. Fraser, "our respected host of the Queen's Arms," and other gentlemen on an excursion in search of adventures. They were driven by Mr. Harvie, of Orillia, with his team] we proceeded, under the guidance of Mr. Kinghorn, jr., to some Indian mounds (?) in the vicinity, well armed with pick-axes and spades, to dig into these sacred repositories of an almost lost race. We give in the next paragraph our adventures,

"Down among the Dead Men."

On arriving at the spot, we selected one that had been previously partially opened up. Skulls and other bones were profusely distributed around the margin of the pit, the work of other Resurrectionists. About three feet from the surface of the ground the bones were deposited, which occupied a further depth of four feet, as thoroughly packed with human remains as it is possible. At about a depth of seven feet from the surface was a solid strata (stratum) of clay, thus demonstrating the depth of the excavation first made by the Indians. The area (diameter?) of this pit appeared to be about fifteen feet, almost circular in shape, but more inclined to the oval. We dug for several hours, and exhumed a sufficient number of skulls to make a graveyard stare. Pieces of copper kettles were hit upon occasionally, lined with deer-skin; and now and then a lock of hair, as natural as though sheared on the spot. We hit upon a few beads of coral, beautifully ornamented; though several had been previously obtained out of the same pit. No particular regularity could be observed in the distribution of the bones, though at times the skull, vertebral column, thigh and leg bones were to be found in seeming apposition. We, of course, each of us indulged a variety of conjectures as to the cause of such a multitude of dry bones in one sepulture, deposited there over two hundred long years, as witnessed to by the presence of a large maple tree immediately over the centre, whose roots were interlaced in every possible manner with the relics—thereby "hangs the tale." To imagine that disease, or war, accounted satisfactorily for their appearance there was not to be entertained, for the compactness and order observable in the arrangement of the bones, forbid the possibility that their bodies could have been interred with them; and the occasional patches of ashes and calcined bone would lead to the supposition that fire had been employed to destroy the soft

and easily decaying parts of the bodies. Then again, the deer-skin exhumed was easily recognizable, and just in that state of preservation that we might expect to find in some of the dense fibrous tissues of the human subject. On the other hand, it is characteristic to find these burying places with their surfaces much below the surrounding earth—in many cases some feet, although originally they must have been considerably elevated, and presenting the appearance of mounds. This would seem to argue that at one time the bulk of their contents were much larger than they now are; and that, in addition to the unerring force of gravitation, some chemical changes have been set up, reducing compound substances to simple elements, as we might suppose to be the case if the bodies had been buried intact. But this last speculation is scarcely warrantable, and it is idle to carry it further. It should be remembered, too, that the sepulchre we visited is not an isolated one, but that there are several others in the same township; and immediately within the limits of our town (Barrie) have they been discovered and emptied of their contents. In Nottawasaga and other townships, they have also turned up; and thus, being of such general occurrence, we may fairly conclude that these resting places of the aborigines of Canada have been duly consecrated and set apart in strict accordance with their ancient customs.

A little work on the "Discovery of America, and the Origin of the North American Indians" (by John Mackintosh; Toronto, 1836), in our possession, gives a chapter on their "Funeral Rites," which accounts satisfactorily for these masses of bones so closely packed together, an epitome of which we will reproduce for the satisfaction of our readers who are curious on this point.

Our author says:—"When a man dies in the time of hunting, they expose his body on a very high scaffold. . . . Every one returns to his own cabin; but the women come for several days after and pour sagamitty on the place."

This explains pretty satisfactorily the appearance of the burial-place as we found it at Medonte. Two centuries, at least, have rolled away since last these poor Indians were disturbed, with a prospect still of having to itinerate still further to gratify the curiosity of the white man. In the peculiar conformation of these Indian skulls we can trace faithfully the marks distinctive of them at the present day. They have lived their allotted time and fulfilled their destiny."

From The Barrie Northern Advance, August 10, 1859.

The Spirit of the Age (Barrie), August 10, 1859, had the following notice :—

INDIAN REMAINS.

A large pit of Indian remains has been discovered in Medonte containing several hundred skulls. As we intend visiting the place, we defer further notice until next week.

The issue of the same paper of date August 17, 1859, had the following article :—

INDIAN REMAINS.

The pit of Indian remains, noticed in our last, it seems, has been discovered some time, but its contents were not completely rifled until within the last week or so. During our visit of the 11th instant (Thursday), we finished the spoliation by exploring for several hours among the mass of bones and earth, but were rewarded for our trouble by simply finding some clay beads, very similar to short sections of a tobacco-pipe, a round stone, apparently used in some game, or perhaps as a weight, a small clay pipe, a piece of copper, to which was attached some beaver skin, and a single bead of rather a curious description, being of stone, or other hard substance, round in form, and measuring a little less than half an inch through; its sides stained in red stripes, something like the ordinary representations of a balloon. The pit from which these things were dug, is eight feet deep, and from fifteen to twenty feet in diameter, and has apparently contained at one time not less than seven or eight hundred skeletons. Surrounding the large hole are a number of smaller ones, arranged in circles, each containing two or three skeletons. These pits must be of considerable age, as the larger one had a maple tree four feet six inches in circumference, growing over a portion of its mouth, which, from the manner its roots and fibres penetrated into and among the bones, must have grown there since the pit was made. From the known practice the Indians had of collecting the bones of their dead every eight or ten years, and depositing them in one common receptacle, there seems little doubt but these pits had their origin in this custom. Since the Indians usually deposited their most valued articles with their dead, and the trinkets found among the remains are few in number and of little worth, we may conclude the tribe whose members are here buried were very poor.

28. On the east half of lot 15, concession 4. Francis Barr. Mr. Barr found pottery fragments, pipes, fish bones, clam shells, and other relics, among which were more than fifty iron tomahawks, found in patches on the farm.

29. On the west half of lot 14, concession 5. Jas. Loftus. The house and farm buildings occupy this site, which covers about two acres between shallow ravines, in which springs issue. Jas. Davis, who was the first to give me particulars of this site, stated that he saw an artificial mound of earth mixed with stones at the site before cultivation had obliterated the original marks. The bone-pit contained a hundred crania or a little more, according to his estimate, and in it two or three iron tomahawks were found. It was about eight feet in diameter. Francis Barr informed me that he was one of those who assisted Dr. Tache to excavate this pit about the year 1863. He thought that the number of perfect skulls found in it was about seventy-five or eighty. There were also some

isolated or single graves near the pit. He says there were as many as six refuse heaps at the site, which is distinct from another at the north part of this farm, described under the next number.

30. At the extreme northwest corner of the west half of lot 14, concession 5 (Jas. Loftus, owner), extending into lot 15 (F. Barr's), there is a small site, distinct from the last one. A few years ago Jas. W. Fitzgerald ploughed up thick deposits of pottery fragments here. A raised beach passes along at this place, and furnished spring water. In Mr. Barr's part, cornhills were to be seen, when the land was first cleared. He has found clam shell fragments, corn husks, and grains (carbonized), and other relics.

31. On the west half of lot 15, concession 5. Anthony Hughes. The Gore brothers cleared the land here, and were, perhaps, the first to find relics on the site. Various persons have since occupied the farm. The Gores found "skinning stones," pottery fragments, and a "pistol" on the site. Iron tomahawks in considerable numbers have also been found. Mr. Hughes estimates the ground occupied by camps at about two acres. On the higher ground east of the camp sites, Jas. W. Fitzgerald and the writer traced six or seven shallow pits or artificial depressions,—one of the usual features connected with places of Huron occupation in this part of the district.

32. On the west half of lot 10, concession 6. Geo. Miller. In a small field south of the farm buildings, the occupants have found pipes, pottery fragments, a bone needle, a deerhorn fragment, iron tomahawks, etc., in ashbeds. And on the next farm south, a few relics of the usual kinds have also been found.

Between this site and the next one, on lot 11, concession 6, near the boundary between the east and west halves of the lot, there is a very small earthwork of an unusual kind, in size about 20 x 40 feet. Some years ago Mr. Francis Barr dug into the bank at one end of this earthwork, for the purpose of examining it, and found a piece of sheet brass or copper. A human skull and other bones were exposed near it by the turning up of a tree; and other relics appear to have been found beside it.

33. On the east half of lot 11, concession 6. Jas. Barr. Mr. Barr guided me over this site, and its interesting surroundings, on May 9, 1900. Most of the pottery fragments and other signs of occupation have been found on a flat peak of land near the foot of the high hill at this place, the peak having been formed by one of the raised shorelines, with which the face of the hill is so completely terraced. It appears that no large trees grew upon this peak, at the foot of which a plentiful supply of good water could be obtained from the springs that issue here. Higher up the steep hillside may be seen another strong beach, or raised shoreline, which in many other places is a water-bearing beach, although just here I did not observe any springs along it. On the east half of Lot 12, on which Mr. Barr lives, he has found pottery fragments, etc., and when the land was first cleared, cornhills were to be seen in

considerable numbers. He has found altogether a dozen or more iron tomahawks (of early French make), chiefly on Lot 12 (on the high plateau near the Gloucester trail), but also part of the way down the hill near the peak first mentioned. In September, 1900, a son of Mr. Barr found one of these axes with straight lines cut into one of its sides, so as to make a rude design or pattern of an



FIG. 33. IRON TOMAHAWK, WITH DESIGN, PROBABLY CUT BY AN INDIAN.

unusual kind (see figure). It turned up in a field near the old Gloucester Road. On some of the maple trees here tapped by Ojibway Indians, in Mr. Barr's sugar bush, fifty years or more ago, the old channels for collecting the sap are still distinctly visible.

34. On lot 14, concession 6. Jas. Burnfield. Mr. Burnfield has found pottery fragments, etc., chiefly at some ponds on his farm, with iron tomahawks in abundance; and once ploughed up a brass kettle in the adjoining lot (the west half of 15). A bonepit is said to have been once found near this site, probably on the higher ground south of the ponds at Mr. Barr's mill; but, although I have been informed of it by different persons, I have hitherto been unable to ascertain its exact position.

35. On the east half of lot 16, concession 6. Henry Heaslip. This site is large, covering an area of about five acres, and occupying a spur of land formed by a winding ravine. I first visited this site on June 12, 1889, and was shown over it by Mr. Heaslip. He has found on it grains of corn (carbonized), iron tomahawks, and other relics of the usual kinds. He showed me five bonepits, one of which, down in the ravine, was large and had copper or brass kettles in it. It is said to have been examined by Dr. Tache. Some of the four smaller pits on the high ground may have been single graves. The blackened camp sites showed quite plainly throughout Mr. Heaslip's field. Geo. Lee owns the easterly 25 acres of this lot, and he has found many remains west of the ravine mentioned above; and also east of it there are some ashbeds. On the farms adjoining this one, occasional relics are found, especially iron tomahawks. From the size and importance of this site, I am inclined to regard it as that of one of the villages at which the Jesuits had a mission, probably the one marked "St. Ignace" on Ducreux's map, which gives the locations of the missions as they were about 1640. This must be distinguished from the St. Ignace of 1649, the village which was captured by the Iroquois, and to which Brebeuf and Lallement were taken, a few hours later, and tortured to death.

36. On the east half of lot 15, concession 7. Andrew Robertson. A water-bearing shoreline occurs near Mr. Robertson's house, at which numerous camps occur, and isolated graves in his orchard. A square piece of copper, or brass vessel, was once found in one of these graves. Mr. Robertson used to find, when the land was first cleared, pipes, pottery fragments, beads, etc. The old Gloucester Road, opened along the earlier trail, used to pass his house, but is now closed in this place.

37. On the east half of Lot 16. Concession 7. Richard Watson. A burial ground here, consisting of single graves in the shape of shallow pits, covered a considerable extent of ground. The camp fires of the village were not far distant from the burial ground; and throughout the fields, iron tomahawks have been found in abundance. Three parallel trenches, four or five rods long, and four or five feet wide, occur near the site; while a supply of spring water was to be found not far away. Sidney Boyd of the adjoining farm (the west half of Lot 16), found five or six single graves on his land, and relics with them, such as stone axes, pottery fragments, etc.

38. On the east half of lot 18, concession 7. Mrs. Janet McColl. The occupants of this farm have found arrow-heads (chert or flint), pipes, etc., but they report no iron tomahawks found on the farm. This absence of tomahawks is remarkable in this district, yet the same is true of the next site. The explanation may be that these villages were of an earlier date than the others in the same neighborhood.

39. On the southwest quarter of lot 18, concession 8. Thos. Sykes. Many camps were to be seen when he first cleared the land some years ago. These were found more especially in what is now the orchard, and near the dwelling house and other farm buildings. The most conspicuous feature at this site was the patch of cornhills, which covered considerable space, and extended across the public road into the land of Mrs. McColl. Mr. Sykes says he found no iron tomahawks, but found pottery fragments, pipes, etc. A water-bearing raised beach is beside this site.

40. On the west half of lot 19, concession 8. Neil Buchanan. Numbers of iron tomahawks and other relics were found here; and before the land was put under cultivation, many cornhills were to be seen. One of the villages marked "Arethsi" on Ducreux's map seems to agree pretty well with the position of this one. Nearly opposite this site, beside the Sturgeon River (on the land of Mr. Hamilton, lots 19 and 20, concession 7), there is a beaver marsh, as I am informed by Geo. McColl, who is well acquainted with the fishing and hunting grounds along the river.

41. On the east half of lot 20, concession 8. Geo. Lowry. The land hereabout is very stony. This farm was formerly occupied by Jno. Hopkins, who found various relics of the usual kinds when he lived on it. A bonepit was found on the opposite side of the public road, on Lot 21, formerly occupied by Robert Riddle, by

whose name the pit was often described. This pit, which was surrounded by ten or more smaller (probably single) graves, was large, having contained 200 crania at the lowest estimate, according to Neil Buchanan of the farm on which the last-mentioned site occurs. Mr. Buchanan once assisted Dr. Herriman, of Lindsay, Ont., to get two complete skeletons from the bones of this pit. Within the small portion of the pit dug by them, they uncovered 52 skulls; and by comparing this with the part unexamined by them, they readily concluded that the pit had originally contained a large number of crania. They also obtained earthen beads (some of a blue color), of European manufacture, a whole pipe, and some pipe fragments, pieces of brass kettles, pieces of fur, etc. The pit had been examined to some extent by Dr. Tache and his workmen, who, it is said, got kettles out of it.

42. On the east half of lot 22, concession 8. Wm. Greatrix. This site is beside a stream that flows into the Sturgeon River, and appears to have been that of a village of some importance. Iron tomahawks and other relics have been found at it.

43. On the east half of lot 18, concession 8, at what is known as "Moore's Clearing," though nobody now lives at the place. The refuse mounds and ashbeds of the village are near the raised beach 110 feet above the "Algonquin." Near the site was a very large bonepit, found many years ago. Brass kettles, rings, wampum, and other beads, etc., were found in it. Dr. Tache's men opened this pit, and one of their number (Cornelius Frawley) informed me that they found a finger-bone with the ring still upon it; also an ossified backbone, not curved, as is frequently the case with tubercular spines, but straight.

44. On the east half of lot 22, concession 9. The Swaile homestead, now occupied by Mr. Brandon. A large bonepit here was examined by Dr. Tache. A village site of the usual description occurs near it. The position of this site resembles that of St. Joachim, as marked upon Ducreux's map.

45. On the west half of Lot 16, Concession 10. Theophilus Moon. This is a small site, at which Mr. Moon has found the usual relics, including iron tomahawks.

46. On the west half of Lot 17, Concession 10. Mr. Hill. It is at the west boundary of this lot, and extends across the public road into the 9th concession. This village occupied the top of the hill at the "Algonquin" beach, along the bottom of which are found the usual springs. Ashbeds are numerous at it, mixed with pottery fragments, and several iron tomahawks have been found.

47. In an easterly or northeasterly direction from the last site, some shallow pits were to be seen, on or near lot 18, concession 10—on a lot that was formerly part of the Routledge farm. Dr. Tache and his men made an opening into a bonepit near these, but found the bones in it too much decayed by the wet from the springs to be removed.

48. On the west half of lot 20, concession 10. This is the Fox farm, with its now celebrated village site, so widely believed (though erroneously) to have been St. Ignace of the Jesuits. Father Martin described it in the following terms, as he found it in 1855. (See his "Life of Father Jogues," Appendix A) :—

"There were two villages called St. Ignatius—the one just mentioned, about five miles from St. Mary (on the Wye); the other, known in Indian as Taenhatentaron, was near the Iroquois frontier, between Teanaustaye and Cahiague. We are inclined to think that its site was on lot 20, concession 10, of the present district (township) of Medonte. Many Indian remains have been found there, pipes of various kinds, collars of all varieties (wampum beads from belts or 'colliers' ?), fragments of vessels (pottery), and more than two hundred iron hatchets of French make. We visited near it one of the great Huron graves, such as Father de Brebeuf describes in detail in the Relations. It is a great circular pit, about five yards in diameter, in which great numbers of bones are still to be seen. When it was discovered in 1844, kettles, pipes, collars (wampum ?), fragments of peltry,—the usual articles used in these solemn burials,—were found there. This town was abandoned from fear of the Iroquois, and removed nearer St. Mary, in 1648, as we have said. It is the one shown on Ducreux's map, on what is now called Sturgeon Bay (River?)."

Father Martin here clearly distinguishes between the earlier and the later St. Ignace. But not so Dr. Tache, whose view is given by Parkman in the following footnote to "Jesuits in North America" (p. 386) :—

"The site of St. Ignace still bears evidence of the catastrophe, in the ashes and charcoal that indicate the position of the houses, and the fragments of broken pottery and half-consumed bone, together with trinkets of stone, metal, or glass, which have survived the lapse of two centuries and more. The place has been minutely examined by Dr. Tache."

It is a little amusing to find a claim made that this pottery was broken in the catastrophe of 1649. It is not in the least strange, however, that forty years ago the fragments should be taken as evidence of some catastrophe. But it should be remembered that on every one of the 75 sites described in this Report, pottery fragments are common, and, accordingly, they can furnish no proof of the manner in which the village came to its end. Nor does the evidence on the other points mentioned make the proof any more conclusive. In fact, it is doubtful whether this site represents any of the mission villages, since Ducreux's map sets them all down facing the Sturgeon River, whereas this village overlooked the Coldwater River.

J. P. Hussey informed me that, among other things, Dr. Tache found a cache of Indian corn at this site. The corn was surrounded with rush mats, then with hide, and stones were underneath it.

C. A. Hirschfelder once informed me that he had obtained some good relics from this site. As his collection is now in the Museum of the Geological Survey at Ottawa, and as some of them are marked "from Medonte," the relics referred to can perhaps be seen there.

The late Rev. J. W. Annis also visited this site and obtained some relics. His collection is now in the Ontario Archaeological Museum at Toronto.

IV.—SITES ON THE COULSON RIDGE, ETC.

At the south side of the township a few village sites are found along the edge of the high ground, which becomes still higher in the adjoining parts of the Township of Oro, where many sites occur, and require a detailed survey by themselves.

49. A forest trail connected the Hurons with the Neutrals at the west end of Lake Ontario. About the place where this trail probably reached the high ground along the south side of Medonte, after crossing the valley of the Coldwater, rather after passing the flat ground where the Coldwater River has its sources, there was a village of some importance. Its site is on the farm of Thos. Higgins, the east half of lot 42, concession 1, near the sources of a stream known as the Forty-six Creek.* A seven-acre field contains the whole of the site, and throughout the field the usual relics have been found. Many bones were found, some of which were those of human beings. Mr. Higgins once found an iron tomahawk, and other tomahawks are occasionally found in this neighborhood. One of his sons found another small iron article; all of which indicate that the village belonged to the French period, but probably not the last part of it.

50. Some indications of a site occur on the west half of lot 2, concession 3, where pottery fragments, pipes, etc., have been found. The land is now tenanted by Isaac Greaves, but was formerly owned by John McKinnon. Strong springs issue along the raised beaches in this farm, as well as in the east half, owned and occupied by Jas. Rix, to whom I am indebted for having called my attention to the remarkable force and coldness of these natural fountains. After uniting, they make rapid streamlets of clear, cold water, which flow together and are the sources of the Coldwater River. The coldness of these numerous streamlets is probably the origin of the river's name.

51. Continuing eastward along the edge of the hills, one finds a village site on the east half of lot 1, concession 4, which was formerly owned and occupied by Thos. Hamilton, but is not now occupied. On a flat shelf of ground that covers several acres, well up on the hillside, in a northeasterly direction from the now vacant house and farm buildings, Mr. Hamilton found many relics and fragments, also pieces of bones, some supposed to be human bones.

* So named because it crosses the Penetanguishene Road in Lot 46. This stream flows into the larger Willow Creek, which in its turn is one of the feeders of the Nottawasaga River.

The occurrence of a few iron tomahawks is reported. Strong springs of water issue near the site, like those to be seen elsewhere along these northerly flanks of the hills, facing the Coldwater River.

52. On the east half of lot 3, concession 5, (Jesse Shelswell's) extending across the public road into the west half of lot 4, concession 6. The latter farm was formerly occupied by the late Wm. Leith, who found various indications of camps, including mortuary remains.

53. A well-known site of average size occurs on the farm of Mr. Cook, the west half of lot 1, concession 6. Many relics have been found in ash beds, in two places, separated by a gulley through which flows a small stream. One of these patches occupies the top of a point between two ravines, and from its position one would conclude that at least this part of the village had been palisaded. The relics comprise pipes, stone axes, beads, bone awls, etc., but none have been found to indicate with certainty the presence of early French traders. A human skeleton, with a clay pipe in its teeth (according to the account of the finder)—No. 16,335 in the museum—was once discovered. This site was mentioned in paragraphs in *The Barrie Gazette*, April 27, and Sept. 7, 1887, both of which are known to have been written by the late F. C. White-lock, teacher at Coulson School, and in company with whom I examined the site, Aug. 27, of that year. Although "knives" are reported in one of *The Gazette* paragraphs, iron relics as such are not reported to have been found, nor are any remembered by members of the Cook family. Some clay pipes of the Belt pattern (see figure and description under No. 22) have been found here.

54. Three small sites occupy an isolated hill or large knoll in the valley of the Coldwater River. This hill had been a small island in the times of the "Algonquin" lake or sea, and it is encircled by the old shore-line, along which springs of fresh water issue here and there, making a plentiful supply for the aborigines. The first of these sites is on the east half of lot 7, concession 7. Wm. Douglas, owner; Frank James, tenant. The black soil and ashes of camp fires were found at a place where water was easily got. On these camp sites, pottery fragments, pipes, flint spear-heads, stone axes, and other relics were found; but no iron relics, so far as those persons remember, who found relics here. In 1889, when I first visited the place, a grove of second-growth pines had grown up since white settlers first cleared the land, but these had also been cleared away by 1900.

55. On the east half of lot 8, concession 7. This site is near springs of water, but is small. Pottery fragments, iron tomahawks, pipes, stone axes, etc., were found at it.

56. On the west half of lot 8, concession 8. Wm. Hawkins. This site is small, covering altogether a patch of perhaps 50 square yards. It is situated about 20 rods from a supply of spring water. Pottery fragments, pipes, etc., were found at it.

57. On the west half of lot 4, concession 10. Nicholas De Hart. This site is on the terrace at the foot of a hill, near the Algonquin Beach, which is water-bearing here, as in so many other places. Some years ago it was frequently examined by Archibald Reid, who picked up numerous pottery fragments, stone axes or chisels, a bone awl, or skewer, and other relics. There were some artificial holes or depressions at the place.

58. On the northeast quarter of lot 7, concession 10, George Duddy. A good many years ago, elder members of the family found a few pipes and other relics in one patch at the westerly edge of the level ground. This spot is in the rear of the farm, and just over the hill from it may be seen the Algonquin Beach, with its springs of fresh water.

59. On the east half of lot 5, concession 11. Walter Brechin. Some pottery fragments and other relics have been found just behind the farm buildings, but the extent of the ground covered by these camps does not appear. There are also signs of ashbeds in a field across the road. The site is near a hillside, overlooking that branch of the Coldwater River known as the Avon River.

60. On the west half of lot 4, concession 12. Archibald McKinley. A gully or branch ravine from the valley of the Avon River runs into this farm, and the site is on the hilltop beside the gully. The relics found here consist of pottery fragments, "skinning stones," pipes, etc. No iron relics are reported.

61. On the northeast quarter of lot 4, concession 12. Thomas Welsh. Some years ago, when the ground was first cleared, this site yielded more relics than it does now. The farm at that time was owned by Patrick Lawlor. It appears to have been a village of considerable size. When I visited this place in 1887, in company with Mr. J. C. Rose of Orillia, mounds of black, mellow soil (probably refuse heaps) and artificial holes in the ground were to be seen. The place was strewn with fragments of pottery, fish-bones, clam shells, etc., in considerable quantities. A circle of stones is reported as having existed at the site when the land was first cleared. It is near the sources of the Avon River, and springs of fresh water are numerous at its easterly side.

62. On the northeast quarter of lot 3, concession 13. Matthew Thornton, who owns and occupies this farm, has found pottery fragments, pipes, iron knives and tomahawks, etc.—the usual relics of a village site—at the north edge of his land; and Mr. Abbott of the adjoining farm (lot 4) has also found similar relics near the same place.

63. On the southeast quarter of lot 3, concession 13. David Hewiston. Some pottery fragments and other relics, including a copper or brass kettle, have been found here, indicating a few camps.

64. On the west half of lot 3, concession 14. John Teskey. The farm was owned and occupied at the time of the discovery of the large bonepit here in the spring of 1856, by Michael Braden,

who first cleared the land. Rev. Dr. Gray of Orillia sent some of the relics from this bonepit to Dr. Daniel Wilson of Toronto University. The finding of human hair in the pit is well authenticated by several eyewitnesses. On June 20, 1900, when I visited the place, Mr. Teskey, the owner, informed me that at a spot about 250 yards from the pit, near the bank of a stream, he had found single graves and relics, such as pottery fragments, etc. Several printed articles describing the pit have appeared. These are worth reprinting, some for their quaintness, if for no other reason. Strange to say, only one of these accounts has any suggestion of its true Huron origin between the years 1615 and 1650.

From the Barrie Advance, of Oct. 9, 1856:—

INDIAN REMAINS.

Mr. P. H. Hough (pronounced Howe), school teacher, North Orillia, informs us that near his residence a large grave was recently discovered, in which were found about 200 human skulls, with other bones, and a variety of ornaments, such as beads, etc. There were also 15 copper kettles, of different sizes, the largest of which is about two feet in diameter, and would hold about four common pails full. These articles are in the most perfect state, and the hair yet holds in small particles to the skulls, whilst lumps of it are intermixed with the heap. The grave was about twelve feet wide, and six feet deep, and was completely filled. No one in the neighborhood has any knowledge of the circumstance which placed them there; and it would be a matter of interest to be informed as to how such a number could have been collected into a spot which the Indians have not possessed for at least a quarter of a century. We are not sufficiently acquainted with the history of that section of our county to risk an opinion, and would most readily give publicity to the views of those who are more competent to do so. Our informant also furnished us with a poetical composition upon the discovery—more, as he states, for the purpose of prompting inquiry than that of making public his own merits. We therefore forego publishing it, as being too long for our available space, and trust our previous observations will elicit the information desired.”

The following article, from the pen of Rev. Dr. Gray of Orillia appeared in The Toronto Globe of Oct. 20, 1856:—

INDIAN REMAINS.

The elevated ground that lies between Lakes Simcoe and Huron* seems to have been, in former ages, a favorite home of the Red Man. Abounding with numerous valleys, and studded with hills of various sizes, it has formed an admirable field for those sudden surprises and those stealthy attacks that distinguish Indian warfare. From its central position, it was probably a battle field for

* The old name of Georgian Bay.

the hostile tribes residing in Canada on the one hand, and the north-western nations on the other. This advantageous position of the district was discerned by the military genius of Sir John Colborne, who, with his wonted sagacity, foresaw that only amid those glens and wooded heights could a successful resistance be made to an invasion (which may God forever avert!) from the neighboring States. He accordingly matured a scheme for settling the district with military colonists, and establishing a chain of Indian settlements along the line of portage that connects Lake Couchiching and Georgian Bay. Various circumstances, however, prevented his plan from being successfully carried out. This whole section of country is studded with Indian remains. In many places Indian burrows have been discovered, containing the remains of dead bodies, pottery, copper kettles, pipes and other articles peculiar to the Red Man. And a few years ago, a farmer in the Township of Medonte found the remains of a small manufactory of pottery, in which were utensils of all kinds and sizes in various states of preparation. The writer of this has visited the spot. It lay on the side of a rocky eminence, and resembled one of those limekilns so common throughout the Province. Occasionally, too, the settlers stumble upon a burrow, and make strange discoveries. About six miles from Orillia the North River crosses the Coldwater road, which runs on the old portage between Lake Couchiching and the Georgian Bay, and forms a natural valley with low heights on each side. On the northern height, about a quarter of a mile from the road, an Indian burrow was found last spring. Perhaps our readers may understand by a burrow a raised mound of a peculiar shape, but such is not the case. It is merely a slightly depressed hollow, of an oval shape, about ten feet deep, as many in length, and about eight in breadth. Sometimes it is difficult to distinguish it from the depression caused by the roots of a fallen tree. The discoverers of the burrow a day or two ago resolved to open it. Removing the surface earth, they came upon layers of bones in various stages of decay, and near the bottom they found a number of copper kettles, two large shells, some beads made of bone, and a quantity of hair. No pipes or tomahawks were found. The number of dead interred there must have been at least from 150 to 200, as one individual counted no less than 70 skulls that were thrown out, exclusive of those left in the burrow. The kettles are of superior workmanship, of various sizes, in excellent preservation, and tastefully formed; all of them have had iron handles, some of which are much corroded or entirely gone. A few have rims of iron, very much decayed around their tops. The beads are coarsely and inelegantly made. The shells are those usually found in such places, and are much worn. As Professor Wilson has lately shown in *The Canadian Journal*, they must have come from the Gulf of Mexico, and thus exemplify the existence of an extensive traffic between the northern and southern portions of our continent. The presence of the hair is involved in mystery. It does not belong to any of the skulls, but

seems to have been either a talisman or an ornament. While standing amid the debris of decaying bones and mouldering skulls, the question naturally arose: "Who and what were those? What were their joys and sorrows, their occupations and pleasures? How did they come to an untimely end, and how long have they lain in their earthly resting-place, till disturbed by the insatiable curiosity of the white man?" Alas, from those grinning skulls and those discoloured bones, not even the voice of echo is heard. Perpetual silence mocks all our inquiries. Without presuming to offer any very decided opinions, the writer is inclined to believe that the remains are those of warriors, slain in battle. The chief grounds for this are as follows:—

(1) In the spring a skeleton was found at a short distance from the burrow, with every evidence of having been struck down by a tomahawk.

(2) The height, where the remains were found, is one admirably fitted for a battle-field.

(3) The bodies seem to have been hastily interred. Most of them had on their ordinary dresses. A few remains of these were found with the fur yet perfect, the skins neatly sewn, and the fringe-like ornaments peculiar to Indian dresses, still distinct and undecayed. The corpses appear to have been hastily thrown in, and little or no earth thrown over them, as the only covering found over them, was that formed by the accumulation of leaves that have fallen since their interment. The time when this interment took place will never be known, but it must have been after the French began to occupy the country.

The following comments on the foregoing article are from the pen of the late Sir Daniel Wilson:—

From *The Canadian Journal*, N.S., 1856, Vol. 1, p. 554:—

The principal facts contained in the following notice of the discovery of Indian remains in the vicinity of Orillia, County of Simcoe, accompanied with tropical marine shells, and copper and other relics, are derived from an account in a recent number of *The Toronto Globe* (Oct. 20, 1856). Indian mounds (pits?) have been repeatedly opened in that neighborhood; and we have in our possession crania and sepulchral relics found in one of these, which was explored in 1854. One of the skulls betrays unmistakeable evidence of the stroke of the tomahawk with which the old Indian met his death. The relics in the present case, however, have been found in hollows, to which it would appear the term "Burrow" is applied: probably as a distinctive variation from that of the old Saxon Barrow, or Sepulchral Mound.

Some of the beads have also been described to us as of glass coarsely made; and the shells appear to have been specimens of the large tropical pyrulae, repeatedly found along the shores of our northern fresh-water lakes, furnishing unmistakeable evidence of an intercourse carried on with the Gulf of Mexico or the regions

of Central America. In the present case the accompanying relics appear to indicate no very remote date for the sepulchral depository. From the iron rims and handles of the vessels, and the glass beads, they must at least be assigned to a period subsequent to the intercourse of the Indians with Europeans; and the remains of some of their fur wrappings indicated a much shorter interval, since their deposition.

The writer in *The Globe*, while hesitating to offer any very decided opinion, is inclined to believe that the remains are those of warriors, slain in battle. The chief grounds for this view are stated as follows:—(Quotes the three reasons found at the end of the article mentioned.)

The relics, however, with which these human remains were accompanied seem irreconcilable with this view of the case. There was not only an absence of weapons of war, which we cannot suppose would have been entirely removed, when such objects as copper kettles and the cumbrous tropical shells were left, but the latter are not objects with which a war party would be likely to burden themselves. The so-called burrow was more probably an Ossuary, into which the remains of the dead were promiscuously heaped, in accordance with known Indian customs, after the final honors and sacrifices had been rendered to the deceased. One of these Ossuaries, in the Township of Beverly, from which specimens of the same class of tropical shells were procured, has been noticed in this *Journal* (Old Series, Vol. III., p. 156). The depression by which the locality of these recently discovered relics was indicated, is no doubt mainly ascribable to the decay of the human remains interred there. Dr. Schoolcraft speaks of some of these cemeteries as "Sepulchral trenches or Ossuaries, in which the bones of entire villages would seem to have been deposited"; and the appearance of hasty and partial inhumation described above has been noted in other examples.

The locality where these relics have been found appears to present a rich field for investigation; and it is gratifying to find such discoveries meeting with the attention evinced on this occasion. The narrator of the above facts observes:—(Quotes the first part of the article mentioned.)

As no knowledge of the potter's art seems to have survived among our northwestern tribes, an account of the discovery of this native potter's kiln, with a minute notice of its contents, and the condition in which they were found, if still recoverable, would be well worth putting on record.

In an article by the late Sir Daniel Wilson on "Some Ethnographic Phases of Conchology," published in *The Canadian Journal*, Vol. III., p. 399, (New Series, 1858), he makes the following further reference to this bonepit:—

"About six miles from Orillia, where the North River crosses the Coldwater Road, which is on the line of the old portage be-

tween Lake Couchiching and the Georgian Bay, it runs through a valley, with low heights rising on either side. On the northern height, about a quarter of a mile from the road, the Indian relics now referred to were found. Many skeletons were disturbed, and along with these were numerous specimens of native art, beads and other ornaments of bone, some curious rings made from the vertebrae of the sturgeon; and also glass beads and copper kettles, some of the latter with handles and rims of iron. Beside these miscellaneous relics lay two of the large univalve shells of the tropics. In this, as in the former cases, the traces of European art fix the date of the deposit at a period subsequent to the discovery of America by the Spaniards, and in all probability to the explorations of the French among the Hurons of this district in the early part of the seventeenth century."

From The Orillia Packet of Dec. 2, 1892:—

"Shortly after the close of the Russian war, an ossuary was opened on the farm then owned by the late Michael Brayden, now the property of Mr. John Teskey, the west half of lot 3, in the 14th concession (misprinted '11th' in the original) of Medonte. Mr. Brayden was then in California. The ossuary was discovered by Messrs. William and Henry Overend, who observed a large, round depression, which they supposed had been dug out, and the latter removed the leaves and mould with his fingers, until he felt what he believed to be a crock. They then obtained spades, and with the aid of Mr. Harvie Chisamore, dug up seventeen copper kettles, capable of holding from six to fifteen pails of water each. The kettles were well preserved, except that the iron bails were somewhat rusted. The settlers used the kettles for sugar-making years after. In the kettles were scores of skulls and bones, some of them of men of great height. One skull had two rows of teeth. There were no weapons of war, and none of the skulls bore marks of the tomahawk or other indications of violent death. Large quantities of hair, wampum and beads were found. Also two conch shells, supposed to be from the Gulf of Mexico, were among the things dug out. The beads were of copper, bone, and some of shell, strung on some kind of sinew, which was rotten. The hair was in little packages, wrapped in birch bark and bound with pieces of hide. Mr. Henry Overend estimated the skulls at from seven hundred to a thousand in number. The kettles appeared to have been hammered out of a solid piece of copper."

65. On the east half of lot 3, concession 14. H. Wright. In the most westerly field of this farm, and adjoining Mr. Teskey's land, on which the last-mentioned site with its bonepit occurs, considerable quantities of relics were found by the late George Wright, more especially when he cleared the land many years ago. His son, Harry Wright, is now the occupant of this farm, which is on the line of the Coldwater Road (once an Indian trail), where it crosses the North River.

66. On the east half of lot 1, concession 14. Price's farm. On a gravelly knoll, in a northwesterly direction from the dwelling-house and farm buildings, Mr. Price, jun., found some pottery fragments, and other relics, including an iron tomahawk, all which indicated a few camps.

67. On the west half of lot 8, concession 12. Duncan Mathieson. There have been found at this site the usual pottery fragments, pipes, "skinning stones," etc. It is near the source of Purbrook, a feeder of the Coldwater River.

68. On the west half of lot 9, concession 13. Joseph Overend. At this site the occupants have found three or four iron tomahawks, three or four "skinning stones," a mealing stone, or mortar, some iron arrow points, pipes, pottery fragments, etc. There were several empty holes (arranged in a semi-circle, or half-moon), one of which had stones around it. These had probably been used as food caches, or were perhaps temporary depositaries of dead bodies, awaiting removal to a larger bonepit.

69. On the west half of lot 9, concession 14. Thos. Murphy. A large bonepit was discovered here in 1867 by Michael Thornton, of Warminster, who furnishes the following account of it :—There were found in it about 300 skeletons, a brass kettle, a copper kettle, a metal bowl (something like a "teapot"), glass beads, wampum beads, an entire conch shell, pipes, etc. Beside this pit there were two isolated graves, each containing a skeleton. The second person to examine it in 1867 was Joseph DeClare, Warminster, who supplied the following data :—The skeletons (those on the bottom of the pit, at least) were regularly arranged with their feet toward the centre of the pit. (Compare this with the mound on Tidd's Island, in the St. Lawrence River, First Archaeological Report (Boyle), 1887, p. 10). Beads were found around the necks of many of these. The indications were that some bodies, with flesh still on the bones, had been buried in the bottom of this pit, unlike the usual practice in connection with bonepits. In 1885, an antiquarian from Toronto, whose name had been forgotten by our informant, engaged laborers and made a thorough examination of the pit. But he found very little, except a few beads, as everything in the line of trinkets had been previously dug out. At the village itself, which is situated at a distance of about forty rods from the pit, iron tomahawks were found in great numbers. This village was situated on high ground near a small stream that issues from springs at the foot of the hill. The soil in some places is sandy, and gravelly in others. Many holes were visible in the ground when I visited this place on August 25, 1887, in company with Mr. J. C. Rose, of Orillia, at which time the farm was in the possession of Eugene Sullivan. But in none of these holes were bones found. Some of the holes were arranged in rows. A smaller bonepit, however, is said to have been found quite near the village site.

70. On the west half of lot 10, concession 12. Robert C. Hipwell. In and round about the garden the occupants of this lot

have found pottery fragments, pipe heads, a stone axe, etc., but no iron relics have been reported. This farm was originally settled by Commander Steele, R.N., and called "Purbrook" by his family. Commander Steele was the member of the old Canadian Parliament for the County of Simcoe, 1841-4, and for some time was Colonel of the militia of the county. His son, Lieut.-Col. S. B. Steele, had the command of Lord Strathcona's Horse in South Africa.

71. On the east half of lot 11, concession 11. Chas. W. Nelson. The owner and his family have found pipes, pottery fragments, "skinning stones," an iron tomahawk, etc. Mr. T. F. Milne received a few relics from them in 1892, and these passed into the Provincial Museum with his collection, in 1898. They include a clay pipe (17,125) and "a small and well made celt" (17,140). This farm was originally settled by the Rev. George Hallen, rector of St. George's, Medonte, and after 1840, the resident clergyman at Penetanguishene.

72. On the west half of lot 12, concession 12. John T. Graham. Relics have been found here similar to those found at the last site. A pit of bones, or grave, was supposed to be here, but on examination it did not prove to be one.

73. On lot 16, concession 12. Jas. Brownlee. Wm. Orr, of lot 17, on which the next site is located, ploughed up thirteen iron tomahawks all in one heap at the site on this farm. There is a place here with so many pottery fragments that it resembles, or would suggest, a pottery factory. The site was probably Algonquin, of later date than the Hurons.

74. On the west half of lot 17, concession 12. Wm. Orr. They have found here pottery fragments, pipes, iron tomahawks, stone axes, knives (iron or steel), and a dagger or bayonet. A graveyard of single graves is said to have been found here also. The camp sites occur beside the "Indian Hill Road," i.e., the original Coldwater Road or Trail. Mr. Orr found three "Indian cents" with old date. Indian houses were built along the Coldwater Road about 1830 at this place, as elsewhere. Like the preceding site, it was probably Algonquin of later date than the Hurons.

75. Various Indian remains have been found at Coldwater Village, where the trail from the Narrows of Lake Simcoe, near Orillia, had its northerly terminus. The landing was near the line between lot 22 and lot 23, in concession 12. Lawrence Heyden informed me (in 1899) of a small brass cross (double-barred, or Lorraine pattern), that was dug up in a garden at Coldwater, and, in response to my enquiry as to this relic, Wm. Teskey, of Orillia, informed me that he found it in a lot adjoining the Orange Hall, in the year 1880. It bore on one side the figure of a dove, above which were stamped the letters I.N.R.I. The lowest rapids on the Coldwater River are now found at this place, and water-mills are in operation here. This may partly explain how the Indian village

and landing place had its origin, as the land hereabout rises a little, while lower down it becomes swampy. It does not appear, however, to have been necessary to make a portage past the rapids, in early times, at any rate, since J. C. Brokovski, who is well acquainted with the district, informed me that according to the oldest residents one could formerly go up as far as Lot 15 (Boyd's Corners) in a canoe. As the land here is nearly at the present level of Georgian Bay, it is probable that no Hurons camped here, because in their time the water stood at a higher level than now. Storms from the northwest also raise the water level in the long arm of Coldwater Bay. It is probable, therefore, that this site was altogether later Algonquin, belonging to the period after the water had receded.

NOTES ON N. VICTORIA.

BY GEO. E. LAIDLAW.

The undermentioned persons must be thanked for their donations of relics and their aid and assistance during this season:—

Large flint blade, from Mr. Michael Byrnes, lot 1, con. 6, Carden Tp., found on the boundary near north bank of the Talbot River. Dimensions: 9 inches long by $2\frac{5}{8}$ broad and $\frac{3}{8}$ thick. Material, dark grey translucent quartzite. Slender stone pick, from Jas. McGirr, P.M., Balsover P.O. Found by Wm. Freeland, near the Portage Road, Thorah Tp., Gamebridge P.O. This artifact is long and slender, of diorite, with smoothed surfaces, oval, oblong in cross section, one end damaged. Present length 10 inches, original length probably $11\frac{1}{2}$ inches, width 1 $\frac{1}{2}$ inch, thickness 1 inch. The back is somewhat rounded.

Stone knife or scraper, given by S. Truman, site No. 9, lot 22, con. 8, Eldon Tp. The edge is on one side; one end is damaged. Has the appearance of the ends being shaped as if to form handles. Present length, 9 $\frac{1}{2}$ inches. Length of cutting portion, 4 inches. Width of blade, 2 inches. Greatest thickness on back, $\frac{3}{8}$ inch. Piece of brass from same lot, slightly sharpened on edge: (questionable aboriginal article).

A large iron French axe, from lot 15, con. 8, Eldon Tp., donated by Mr. A. Ferguson, Glenarm P.O., has been reduced by aboriginal methods to present size. Unlike Fig. 79, p. 51, Arch. Report for '91, this one had a slice from the lower portion of the blade removed, ends of two long cuts, one on each side, and a cross cut at the bottom remain to show how this was done. This axe bears the same maker's stamp as far as can be made out, as Fig. 79.

Small stone celt, N.P.R., lot 3, Bexley, from John Black.

Striped and clouded grey oblong slate gorget, with two holes. Size 3 $\frac{1}{2}$ inches by 1 $\frac{1}{4}$ thick. From Ward's Farm, Bexley P.O., donated by Mrs. R. Campbell, Kirkfield P.O.

Oval flint implement, dark grey in color. Size, 4 by $2\frac{3}{8}$ by $\frac{3}{8}$ inches thick in centre, well shaped, with good edges, and pointed ends. Ovate flint scraper, same material and found with the other. Size 2 by 1 $1\text{--}3$ by 5-16 inches. Well made and has obtuse edges at ends. These implements are extremely rare in this locality. From Neil Sinclair's farm, S. Bay, Balsam Lake, Fenelon Tp., given by J. W. Laidlaw.

Two flint arrow heads, six scrapers, one tooth of unknown animal, worn smooth on top surface, as if used as a rubber, one perfect bone needle, eyed, $2\frac{1}{2}$ inches long, site 8, head of Portage Road, block E, Bexley. Given by J. W. Laidlaw.

From village site 23, lot 12, con. 1, Fenelon, twp. 1. Circular hand hammer stone, pitted, with flattened sides, and perimeter, showing usage, size $3\frac{1}{2}$ by 4, by $1\frac{3}{8}$ inches, 1 irregular shaped hand hammer, stone, one side flattened with preparatory pit, a portion of the perimeter shows abrasion.

One smoothing stone, $4\frac{1}{2}$ by $3\frac{1}{2}$, by 2 inches. The top is smoothed and rounded, bottom flat, smoothed and partially polished. Shows traces of wear. The whole surface of stone has been artificially smoothed. These stones are also called polishers, or rubbing stones. Blade part of broken celt degraded to hammer. Large square axe, smoothed surfaces, length 7 inches; width of cutting edge $2\frac{1}{2}$ inches, and thickness $1\frac{1}{4}$. This variety is very rare here. Blade end of broken celt shows traces of usage on edge, and broken surface. One rough chisel, 5 inches long, $1\frac{1}{4}$ wide, and a portion of another of same sort. One grooved maul, ovoid, limestone pebble, $3\frac{1}{2}$ inches long, 2 inches wide, and $1\frac{5}{8}$ thick, encircled around the middle by a slight pecked groove, which is deepest at the top. A small fragment is broken out. Has a smoothed surface, and is exact counterpart of the stone heads to the Northwest Indian "coup sticks." Two small ovoid pebbles, and one flat oval smoothing stone. Seventeen stone discs, from 13-16 to 2 inches in diameter, and $\frac{1}{4}$ to 13-16 thick, in all stages of manufacture; none perforated, but several have perforations started.

Two circular and smoothed pebbles. Smaller 1 inch in diameter and 5-16 thick. Largest 1 13-16 by 7-16 inches. These two have been artificially shaped. Two small irregular pebbles, limestone, with natural perforations. Though not particularly striking, they may have been children's toys, or pendants. All these discs, etc., are of limestone, with one exception, which is granite.

Forty pottery discs, in all stages of manufacture. One is perforated, several with perforations started.

One moulded clay bead, with moulded hole, size of bead 1 by 9-16 inch. A group of six finger-nail imprints is on one side of perimeter. The specimen is a rude example of pottery art.

Seven fragments of clay pipes, and seven fragments of stems. One of the pipe fragments is a human mask.

Thirteen pottery fragments, one evidently a portion of a toy pot, one with a hole for repairing-thongs, three possessing curious

rim structure, one with pattern of rows of finger-nail imprints, the rows running in various directions around the rim, and up and down the bowl.

Five bones, showing ends cut off.

One bone skindresser, corner of edge fractured, 7 inches long, made of deer's leg-bone.

Five bone awls.

One bone and one horn socketed implements, perhaps used as arrowheads.

Two bone bangles, three large bear tusks, one beaver tooth, and two deer horn tines, one of the latter has a portion of side removed by grinding.

Two bone beads, in process of manufacture. Two portions of bone heads, one-half of eyed bone needle, one bone point. One piece of worked soap-stone. One flint arrowhead on side of which polishing or grinding has evidently been attempted. One piece of steatite (or marble?) pipe, which has been attempted to further cut into some other form, for ornamental purpose. Perhaps this is usually called secondary cutting. Two natural shaped stones, with artificial ends. The mealing stones (metates), gneiss slabs. Donor of above articles, A. Ferguson, Glenarm.

From site No. 24, lot 23, con. 1. Seven pot discs, various sizes. One clay pipe, flat sides on bowl, and stem having inscribed lines for ornamentation. One broken pipe bowl, showing an unusual flat, shallow, cup shape. One perforated clam shell. One bear's tusk. Ten bone awls. One bone bangle. One bone bead, and several fragments. One fragment of beaver's tooth from lower jaw, showing an artificially formed cutting chisel edge. Carbonized corn, and a clay nodule. Donor of this lot, A. Ferguson, Glenarm.

One iron implement, perhaps a bark-peeler, and several small pieces of sheet brass, from lot 11, con. 8, Eldon. Given by A. Ferguson.

From site 3, lot 5, con. 5, Bexley. One bone awl, 6 inches in length. Three perforated soap-stone beads or discs. One clay pipe, human mask, facing stem or smoker; a secondary stem hole has been bored in front of pipe, then the mask faced away from smoker. This secondary hole is not unusual here; several pipes have been recovered that have been treated in a like manner. Finder of these articles, Wellington Irwin. Procured by writer.

One large greenish blue granite boulder mortar, from lake shore on site 27, Birch Point, Balsam Lake, lot B.F. 26, con. 3, Fenelon Twp. Found by writer. (This specimen is broken in half.)

From site 23, lot 12, con. 1, Fenelon. Three clay pipe bowls, ordinary type. One plain stem. One fragment of stem, with snake coiled around it. Perforated shell (*Helix*?). One large perforated clam shell, showing use as scraper. One columella $1\frac{3}{8}$ inches long of tropical shell. One small sea shell (bivalve). One good bear tooth knife. One beaver tooth (lower jaw), evidently ground to a very

sharp chisel edge. One bone bangle. Two bone beads. Six bone awls. One perforated metatarsal bone. Two fragments of eyed bone needles. One long slender bone needle, 2 13-16 inches in length, with shallow side notches at butt end for attachment of thread. Two slender bone points, with butts shaped to fit sockets. Found by writer.

BIRD PIPES.

The first that we will consider is the owl pipe, which comes from a village site on lot 18, con. 15, Tiny Twp., which furnished relics described on p. 48, rep.'99, where it was found in the autumn of 1900. This is a splendid specimen of pipe sculpture, material being dark greenish, gray striped slate (Huronian). The execution and finish are equal to the eagle pipe, p. 57, rep. '90, fig. 86, and material nearly the same. The pipe being carved in such a manner that the colorings are in longitudinal stripes down the side, with

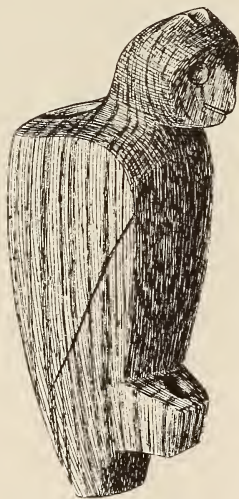


Fig. 34. (23,050).

the curvilinear shadings in front and at the back, giving a very pleasing effect. The transverse section is square, with rounded corners. Greatest width from side to side across the breast $1\frac{3}{8}$ inches, and greatest depth from back to front, 1 5-16 inches. Total length of head and body, $4\frac{1}{8}$ inches. The body gradually tapers to a short tail. The sides are plain, with the exception of a diagonal cut from the top of the breast on the right side to the lower part of the back, probably conventionalizing a wing. The treatment of the head is much better than that of the owl pipe, mentioned in rep. 1899, p. 49, and from the well defined tufts on ears on this specimen there can be no doubt that it represents the horned owl. The beak is clearly cut, and prominent, mouth well defined, eyes being represented by circular hollows, with the exception of a few lines on the front of the frontal projection, probably representing

claws. There are no other diagnostic features marked. The bowl is a conical shaped hole, coming out at the shoulders, with a diameter of 9-16 inch, and a depth of 1 9-16 inches. The stem hole has a diameter of 5-16 inches, with a slightly upwards incline, and is, as is usual with these pipes, located in the back, and is conical in shape. The drilling in both the bowl and stem-hole has been well done. Several drill rings appearing in the lower part of the bowl show that different sized drills have been used. The whole surface with the exception of the diagonal cut, is smoothed, but not polished, and without marks.

The frontal projection in this specimen is rather more massive than is usual, and the perforation, instead of passing from side to side, as is usual, is reversed, and goes from top to bottom; this perforation has been bored from both ends with a drill of the same size as the stem hole, the narrower diameter of the centre of the hole shows the use of a conical drill. There is a cut on top of frontal projection from the hole to outside edge, then straight down the centre of front, till it meets with a cutting from the hole to the outside edge at the bottom, dividing the face of projection into two parts; on the right part are two parallel lines from top to bottom, on the left is an X; these may be taken to represent claws. As relics showing contact of white men have been found on same site, may have a tendency to show that this specimen is a later production of aboriginal skill. Donor, Herbert G. Glaspell, through favor of E. W. Glaspell, Rosedale P.O., Ont.

The raven pipe is of dark slate, or shale, was plowed up by Mr. Charles Rennie, Seagrave P. O., Ont., 30 years ago, on his farm, lot 18, concession 13, Reach Twp., Ontario Co. It is of excellent design and workmanship* or the technical detail of the head being well executed, while nothing represents the wings, the feet being only deep scratches on the sides of the somewhat protuberant frontal projection. Tail feathers not marked. The remarkable feature about this pipe is the number of deep cavities or indentations on shoulders and neck. (See the same on monkey pipe, fig. 28, p. 29, report of 1887, and panther and

* One who has examined many stone pipes, expressed his opinion of this specimen thus:—The material is obscurely veined Huronian slate, and while the general design is a somewhat bold one from an aboriginal point of view, there are numerous evidences that the working out of the details has been performed by at least two workmen. Indeed, the pipe is still unfinished in some respects.

One of the somewhat interesting facts brought out by a close examination of this pipe is that in the making of the oblong hollows, or slots on the shoulders, the end of each has been produced in the first instance with a drill, and it is probable that intermediate drillings were also made, so that it was comparatively easy to remove the dividing portions. Indeed, on the right side, where one workman has begun to make slots, the evidence of intermediate borings remains.

In this pipe two stem holes have been bored, the lower one in all probability by the first workman. At any rate, it must have been made before the hole to form the bowl, and so low that the sharp-pointed drill used in the latter case failed to tap it. For some reason it would seem to have been impossible to prolong the bowl boring, and hence a second stem-hole had to be bored higher, and apparently with the same tool that was used to widen the original small hole in the bowl, for the diameters of the two now correspond. This is made clear from the fact that the termination of the bowl boring appears on the under side of the second or upper stem-hole. D. B.

bear pipes, figs. 84, 85, report 1890; also woodpecker and partridge pipes, figs. 103, 117, N.Y. State Museum Bulletin on polished stone articles—there being no less than four on right shoulder and three on left, with two extra shallow ones; on the neck are three, one on each side and one on top; one shallow one is placed between the eyes, and one shallow one on each side of head behind the eyes; total, ten deep and five shallow. The deep cavities have evidently been made by boring holes at a small distance apart, and then grinding out the space between them. The shallow depressions are mere grooves. These pits may have been intended for the reception of some foreign substance, after the manner of inlaying, which could have been imbedded in the eyeholes, and colored to suit; gum of some sort would be a favorable material; and then again, hard substances could be used after the manner of the inlaid metal on the Ojibwa stone pipe of Lake Superior, and the inland shell and ivory

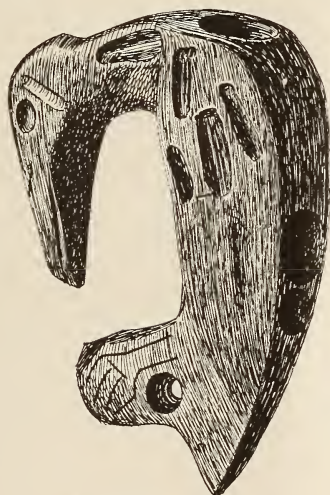


Fig. 35. (23,049).

of the British Columbia stone ware. The beak is very powerful, and has the appearance of being longer, as the lines denoting mouth do not come down to the present point. The nostrils are well defined by oblique cuts, and the eyes are represented by circular depressions. Dimensions, length $3\frac{3}{4}$ inches, greatest width of body 13-16 inch, depth of body $1\frac{1}{4}$ inch, length of head 2 inches. The posture is such that it resembles the raven bending its head over to eat something held in its claws, which is further accentuated by the prominence of frontal projection; and it has been suggested that this projection was a fish held in the claws, the idea being helped by the outside outline. There is a slight protuberance on top corner of this projection, having the appearance of something that has been broken off. This is in direct proximity to the end of the beak. Distance between back and forehead $2\frac{5}{8}$ inches. Below the outlines of the feet is a transverse perforation, bored by a con-

cal drill. Bowl and stem holes are in usual position, and have been bored by a conical drill. Bowl $1\frac{3}{4}$ by $\frac{5}{8}$ inches in size. Stem hole 11-16 in diameter, and is of a more obtuse shape than bowl. Immediately below a second hole has been attempted, for what purpose it is not definite, unless a miscalculation was made on depth of bowl, and then the attempt abandoned. Depth $\frac{1}{2}$ inch, and diameter 7-16 inch, conical shape. Transverse section of body squarish, with rounded corners, an attempt has been made to delineate the wings by longitudinal depressions down the breast, one on each side. From the top of shoulders, at the juncture of the neck, two cuts begin and pass down on each side of back to end of wings. This is a remarkably fine pipe, and is in quite a natural position, and shows an enlargement of the aboriginal art idea.

Several years ago a skeleton was dug up on Foster's farm, and some flints found on the hill. This is due south of site No. 23, on next lot, but a close examination revealed nothing of it.

NEW SITE.

On west side of Indian Point, Balsam Lake, which juts down from the north, and at a distance of about $\frac{3}{4}$ mile from the end, the writer found traces of aboriginal occupation, which at a later investigation disclosed the fact that this was another site. Twelve or thirteen ash beds were found, of which six or seven were on the immediate shore, which here is a bank very abrupt and rocky, about eight or ten feet above water, the actual shore being flat limestone rock. The flat on which the village site is, is of sandy loam. The "dump heaps" on edge of bank had an external covering of sand, which was blown up from the shore, to the depth of several inches. A heavy growth of pine has grown over the place since the site was occupied, of which some stumps are about four feet in diameter. Several heaps were dug into, and the material removed was put through a sieve, with the usual results of fragments of pottery and pipes, carbonized corn, charcoal, bones, shells, fish scales, bone bead, and needle. Burnt stones and fire fractured stones are plentiful on surface of ground. Flint chips and fragments were very frequent. The extent along the shore of the site was about 100 yards. The site is partially cleared and partially covered with underbrush, but has never been plowed, and is adjacent to primeval woods. Mr. J. H. Carnegie is owner of property. This makes No. 32 village, site N. Victoria.

List and locality of village sites, graveyards, large pits, and cache pits, to date, corrected :—

No. 1. Rummerfield Hill, lot 1, North, Portage Road, Bexley Twp., N. Victoria, with graveyard located.

2. Logan's Hill, lot 22, concession 3, Eldon Twp., N. Victoria.

3. Corbett's Hill, lot 5, con. 5, Bexley Twp., N. Victoria; graveyard not located.

4. Heaslip's Point, Balsam Lake, lot 2, North West Bay, Bexley Twp., N. Victoria.

5. McKague's, lot 9, con. 3, Bexley Twp., N. Victoria; cache pits not located.
6. Smith's, lot 18, Gull River Range, Bexley Twp., N. Victoria; cache pits located; graveyard not located.
7. Benson's, lots west $\frac{1}{2}$ 5 and 6, con. 2, Bexley Twp., N. Victoria; cache pits located.
8. Head of Portage Road, Balsam Lake, block E, Bexley, N. Victoria.
9. Truman's, lot 22, con. 8, Eldon Twp., N. Victoria.
10. McDonald's, lots 44 and 45, South, Portage Road, Eldon Twp., N. Victoria.
11. Perrington's, Long Point, east $\frac{1}{2}$ of lot 29, con. 1, Fenelon Twp., N. Victoria.
12. Carnegie's, Indian Point, Balsam Lake, Bexley Twp., N. Victoria; graveyard not located; modern Indian graves and remains of houses (chimneys) located.—No. 1.
13. Newby's, lot 2, con. 11, Mara Twp., N. Ontario.
14. Rumney's, lots 56 and 57, Front Range, Somerville Twp., N. Victoria.
15. Wallace's, lot 60, Front Range, Somerville Twp., N. Victoria.
16. Moore's Hill, lots 19 and 20, Gull River Range, Bexley Twp., N. Victoria; large pits located.
17. Ead's, lot 24, con. 2, Somerville Twp., N. Victoria.
18. Reid's (Head River), lot 25, con. 3., Digby Twp., N. Victoria.
19. Campbell's (Deer Lake), lot east $\frac{1}{2}$ of 1, con. 8, Laxton Twp., N. Victoria.
20. Barrack's, block E, lake shore, Bexley Twp., N. Victoria; modern graves located on shore near by.
21. Fraser's, lot 21, con. 9, Eldon Twp., N. Victoria.
22. Chrysler's, lot 17, con. 3, Carden Twp., N. Victoria; large pits located.
23. Clarke's, lot 12, con. 1, Fenelon Twp., N. Victoria; graveyard not located.
24. Brown's, lot 23, con. 1, Fenelon Twp., N. Victoria; graveyard not located.
25. McKenzie's, lot E part 22, con. 1, Fenelon Twp., N. Victoria.
26. Jamieson's lot W. $\frac{1}{2}$ 23, con. 2, Fenelon Twp., N. Victoria; embankment and two graveyards located.
27. Birch Point, South Bay, Balsam Lake, lot BF 26, con. 3, Fenelon Twp., N. Victoria.
28. McArthur's, lot west part 26, con. 4, Fenelon Twp., N. Victoria.
29. Lee's, lots 69-71, Front Range, Somerville, N. Victoria.
30. Winterbourn, lots 11-12, con. 8, Laxton Twp., N. Victoria.
31. Hilton's, lot 12, con. 7, Laxton Twp., N. Victoria.

32. Carnegie's, No. 2, Indian Point, on west side. Balsam Lake, Bexley Twp., N. Victoria.

Modern or recent Indian graves located on Heron Island, Lower Mud Lake, Carden Twp., on Carnegie's Point, and on shore at block E, Bexley, Balsam Lake; also mound graves on Ghost Island, Balsam Lake.

Up to late years Indian Point was an Indian reserve. The remains of the houses used there can be plainly seen.

Corrections in report, 1900 :—

Stone pipe, fig. 23, p. 21. Comes from Tiny Twp., Simcoe Co.

Stone pipe, fig. 24, p. 21. Comes from Fenelon Twp.

Bone fish hook, fig. 29, p. 23. Comes from Fenelon Twp.

Second legend of embankment on site 26, lot w. $\frac{1}{2}$ 23, con. 2, Fenelon :—

Donald McKenzie of Cambray P.O. was informed over 40 years ago by one, John McDonald (from Badenoch, Scotland), that he first saw the embankment 67 years before that, and that the curves and edges were sharp and distinct. An Indian had told him (John McDonald) that this embankment was built by the French, who came in by the way of Beaverton (to the west), and were attacked and defeated by the Indians. The slain of both parties were buried on the spot, in two different places. The French nearest to the embankment; certainly the two graveyards seem to bear this story out.

NOTES ON CANADIAN POTTERY.

BY F. W. WAUGH.

The art of making pottery has long since disappeared among the Indians once claiming Ontario as their hunting grounds. This was a natural consequence of the introduction of copper kettles and other vessels of European make, which were stronger and lighter than the Indian ware.

Historical references to the manufacture of native pottery are few and unsatisfactory, so that we are obliged to piece out our information from this source by the study of a small number of entire pots, and the numerous fragments found on the sites of ancient villages.

Many of these fragments exhibit a laminated edge, and a tendency to scale away in layers, which gives an indication of the manner in which the vessels were constructed. This was no doubt accomplished by joining and moulding slabs of clay of the proper thickness, adding more where necessary, and by smoothing and shaping the whole with some simple tool, such as a wooden paddle

or a clam shell, used with water. (Figs. and). Round-bottomed pots were the invariable rule among the Indians of this region, who were mainly of Huron-Iroquois or Algonkin origin; why were the bottoms made of this shape? No doubt vessels with such bottoms



Fig. 36. (No. 3,146).

were stronger than flat-bottomed ones, and so less liable to breakage, and could also be made to stand more readily in hollows in the ground, which usually answered for both table and fireplace. Some of our most eminent archaeologists express the belief that a rounded hollow was made in the sandy soil, of the same size and

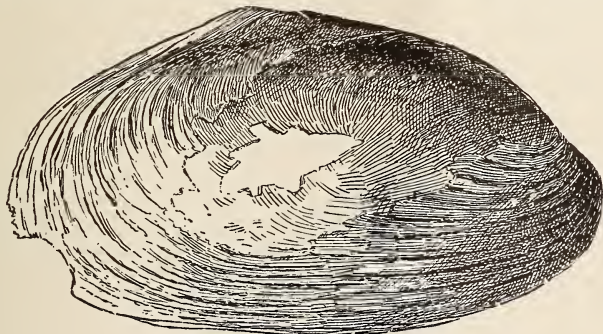


Fig. 37. (No. 8,609).

shape as the lower portion of the intended vessel. In the hollow thus formed, the bottom would be quickly and easily built up, and support would be afforded the whole vessel in the plastic state. Drying could then take place without the removal of the pot. Some specimens in the provincial museum present the appearance of

having been patted all over the outside while still plastic, or partly so; this occurs especially on the lower parts of vessels, and appears to have been done with some object having a small surface, in some instances; other specimens bear the appearance of having been similarly treated with a paddle wrapped with cord, or some sort of woven fabric. This was probably intended to weld and solidify the

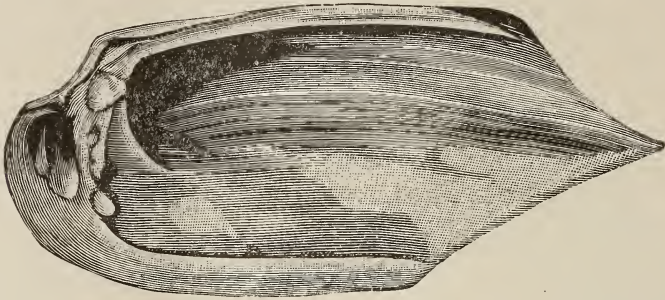


Fig. 38. (No. 8,608).

bottom, which had previously been manipulated mainly from the inside.

The material used was common clay, which was nearly always obtainable from the bank of some stream. This material was crushed, and made into a dough, with water. To this was added a quantity of granite, burnt and pulverized, which no doubt gave a hard surface, but would need to be added in moderation, as it would increase

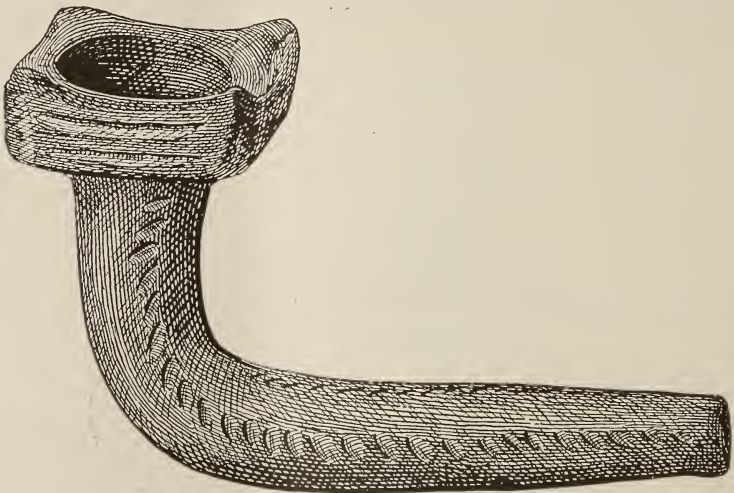


Fig. 39. (No. 6,898).

the friability of the vessels. In fact, it is owing to the presence of these granite particles that pots found in the damp earth are usually broken, and readily crumble to pieces. Judging from the number of fragments found in camp refuse, pottery must have been rather short-lived at best. It was possible, however, to mend vessels not too badly broken, and render them still serviceable for culinary purposes. This was done by the simple method of drilling

holes on each side of the crack and binding the parts with cord. This practice fully accounts for the drilled holes sometimes found in fragments of pottery.

In Ontario generally, the standard type or form for pots was that of a wide-mouthed jar or vase, with a round bottom. Some pots have been found possessing a single ear or lug.

Pots were, no doubt, used principally to contain water, and as cooking utensils. The latter use is plainly evidenced by the incrustation of burnt food still to be found adhering to the inner sides of

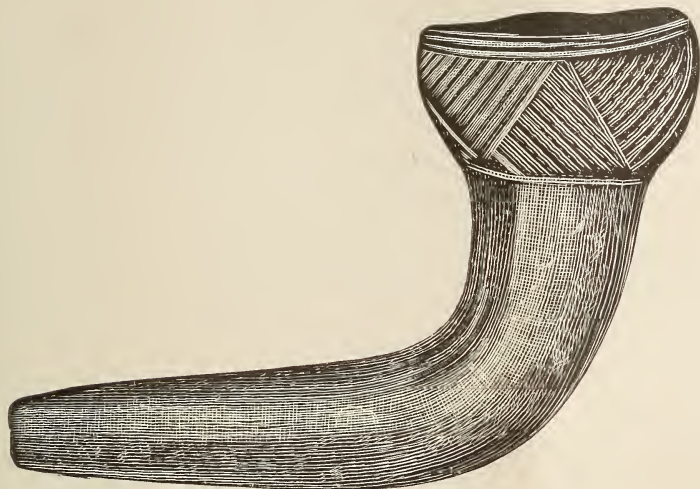


Fig. 40. (No. 6,822).

vessels, and even of fragments. Pots are sometimes found in graves, where they were placed to hold food for the departed spirit, but there is no reason to suppose that any were made especially for this purpose, in our part of the country at least. *

In speaking of pottery, we must not forget to mention the clay pipe, the making of which is usually credited to the men. Pipes of this kind were of various shapes, but one or two forms seem to have met with especial favor. (Figs. 7, 39 and 40). The making of the hole through the stem would seem to have been the most difficult operation. This was accomplished by forming the stem around a thong, or a flexible twig, which would be destroyed in the process of burning.

* "The reader will observe that considerable care has been taken in referring to, or in describing, vessels of shell or of earthenware, to note whether or not they were imperforate as to the base. This, it may be well to explain to some, has been done in reference to a custom obtaining to a considerable extent in Florida where vessels placed with the dead often had the bottom knocked out, the base perforated, or a hole made in the base at the time of manufacture, presumably 'to kill' the vessel to free its soul to accompany that of the dead person. This curious custom has been regarded as peculiar to Florida, but it is interesting to note a possible observance of it to a limited extent in the mounds of the Georgia coast. It is well to note, however, that in cinerary urns, perforation of base is never met with."

CLARENCE B. MOORE, in "Certain Aboriginal Mounds of the Georgia Coast." P. 9—Philadelphia, 1897.

Considerable variety, within certain limits, is shown in the surface decoration, which seems to have been much in vogue then. This took the form of a border around the rim, and also around the shoulder or portion just below the neck. Very seldom was any attempt made at decorating the whole exterior. Fig. 41.) Here we have a view of an interesting stage in the infancy of an art.

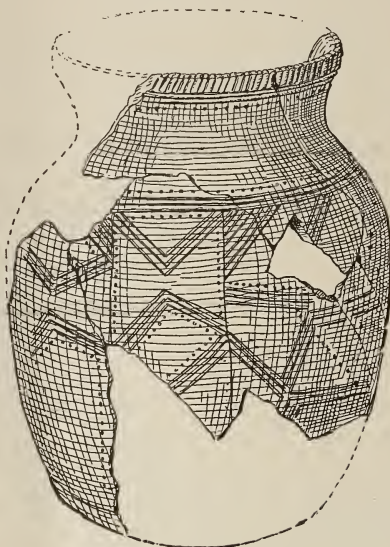


Fig. 41. (No. 8,371).

We are also near enough to its source to ask whence it came. What prompted these primitive savages to repeat a simple pattern, thereby forming a border? The question is easier asked than answered. There seems to be little to warrant the supposition that the ordinary designs had any more significance than similar designs possess at the present time. They were no doubt the outcome of that artistic



Fig. 42.



Fig. 43.



Fig. 44.



Fig. 45.



Fig. 46.



Fig. 47.

phase of human nature which finds satisfaction in the same mode of expression to-day. It seems probable, moreover, that they were hit upon in the first place quite by accident. Some vessel, before drying, may have received certain marks, accidentally or otherwise; these may have been repeated simply in imitation, or to disguise the marks of the accident; the result would be found pleasing to the

eye, hence the evolution of the border. The simplest border conceivable would be a series of dots or dashes. (Fig. 42.) Designs as

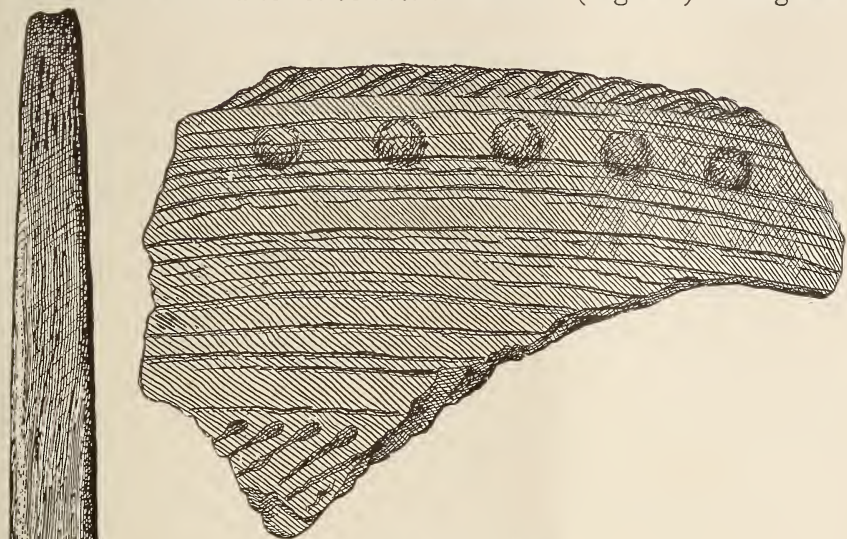


Fig. 48. (8,430)



Fig. 49.
No. (10,505)



Fig. 50. (17,018)



Fig. 51. (7,909)

simple as this are found on many pots. An advance upon this would be a series of parallel vertical or oblique lines (Fig. 43), a pattern

also often found. Oblique lines could be made in two directions, and used in single or double rows (Fig. 44). The latter combination would very easily lead to the angular or arrow-shaped design (Fig. 44). Other patterns were obtained by two sets of oblique lines, as in Fig. 45. The latter design is found with perhaps more frequency than any other among the more complicated designs, and seems to be what we might call a representative or typical pattern. It is to be noted that the only artistic elements used were straight lines; no curves are to be found, except that lines are frequently made to run parallel with scalloped rims. No animal or plant forms were used. Pipes were certainly made to represent men and other animals, but this would come in for consideration under a different artistic treating from pure design. It is also true that small

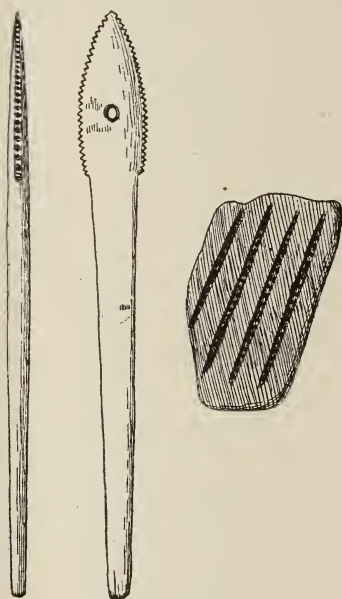


Fig. 52. (20,026)

circles were sometimes used, but these were stamped with hollow stems, or bones, not drawn freehand. It is impossible to describe all the patterns found on pottery; suffice it to say that the possibilities of the straight line seem to have been almost exhausted in the great variety of patterns to be found.

The designs mentioned were usually traced in the clay by some pointed instrument. The only raised work attempted was the making of small bosses or eminences by punching holes in the clay from the inside of the pot (Fig. 48). The line itself admitted of some variety; accordingly we find impressions of twisted strings, or of slender sticks closely wound with cord, and markings which might be made by the light impression of some coarse fabric. Other markings, sometimes attributed to the use of a notched wheel or roulette, were probably made by an instrument similar to Fig. 51, as

there is no ground for believing that our Indians had advanced so far in mechanics as to make use of a wheel revolving on an axle. It is difficult to say with what some impressions were made. Comb-like tools of bone were probably used as markers. Many pointed pieces of bone are found around village sites which are much too blunt to have been used as awls, and were probably employed as markers also. The difference between a pointed bone that may have been used as an awl and one that could not be made to serve such a purpose is shown in figs. 50-51. Almost anything would serve as a marker in an emergency, even to a sharp thumb-nail, with which the patterns on a few pieces in the museum were executed. Fig. 49 suggests its use as a tool for patting the outer surface, or possibly for tracing parallel lines. There is no doubt that tools for making and embellishing pottery, varied somewhat according to the fancy of the maker. This would naturally be the case in the crude condition of mechanical arts generally, and of pottery-making in particular.

ON THE PAGANISM OF THE CIVILIZED IROQUOIS OF ONTARIO.*

BY DAVID BOYLE.

It has often been a subject for doubt whether this or that primitive people, if left to itself, would have emerged into civilization—in other words, it has proved a matter of uncertainty whether the people concerned, possessed the potency of progress. In some cases Dame Nature has relentlessly cut off the supply of raw material before the experiment was well begun, and in others but a short time afterwards, showing us, at any rate, that the elements of success were nullified, and worse than nullified, by contact with superior peoples.

Respecting no division of the human race has there been more diversity of opinion as to innate possibilities of improvement than with regard to our American Indians. But the terms just mentioned are of very wide application—much too wide to make it possible for anyone to arrive at a conclusion; for what is true of one stock, or of one group in a stock, may be wholly, or largely, inapplicable to any other division or subdivision.

The Huron-Iroquois believe that they themselves originated from a hole under a hill on the north shore of the St. Lawrence river. Their traditions further declare that on account of a great dissension which took place, those who were latterly known more specifically as Hurons, and have been regarded by Brinton and Hale on philological grounds as the senior branch, found their way by circuitous routes to the country which lies north of Toronto, on

*Read before the British Association in Bradford, Sept. 5th, 1900, and reprinted from *The Journal of the Anthropological Institute*, Vol. XXX., July-Dec., 1900.

The present paper is an attempted analysis of Iroquois pagan belief, based on the details given in the Ontario Archaeological Report in 1898.

the south shore of the Georgian Bay ; while the portion we call Iroquois took a southerly course and occupied the northern and central part of what is now the State of New York.

Other two not inconsiderable bodies found excellent hunting-grounds still farther west, on the northern and southern shores of Lake Erie, the former being known to us as the Attiwandarons, or Neutrals, and the latter as the Eries, or Cats. Other divisions lying south of the main body were the Tuscaroras and Andastes. It is wholly with those who made their home in New York and ultimately in Ontario, that we are now concerned.

It is unnecessary for present purposes to follow the history of these people from the date of their first contact with the French. Let it suffice to say that early in the seventeenth century they became the undying enemies of France, on account of an attack that was made on them by Champlain, who allied himself with the Hurons of Ontario, and thus initiated a series of wars that continued until the French were compelled to retire from the continent. This almost chronic state of hostilities, however, did not prevent French missionaries from devoting themselves to the conversion of these most untamable of savages, a small portion of whom became Roman Catholics, and have left descendants living now at St. Regis and Caughnawaga on the St. Lawrence. Protestant missionaries also, both Dutch and English, met with some success ; but still a very large minority remained true to paganism, so that of those who, on account of their loyalty to us, left the newly formed United States to take up their abode in Canada, nearly one-fourth clung to the belief of their forefathers. To-day the proportion of avowed pagans to professing Christians is about the same, and we have, therefore, on the Grand River Reserve in Ontario a pagan population of fully one thousand persons. There is another settlement on the Bay of Quinte at Deseronto, all the members of which are Mohawks, and profess Christianity.

It will be seen very readily that a condition of society in which paganism openly professed and practised has existed side by side with Christianity for nearly three hundred years cannot fail to possess many features of peculiar interest to the ethnological student, and to afford much material for profound study.

One of the first things that obtrudes itself on the attention of a visitor, even during a brief stay among the Iroquois, is the utter indifference of Christian or of pagan to the religious convictions of each other. In their Council or governing body of fifty-two members both beliefs are represented; yet no recriminations, or causes of difference occur on this account. Many of the so-called Christians are influenced largely by old-time predilections, and either attend no place of worship at all, or would just as soon put in an appearance at a pagan festival in the long-house. Still it must be acknowledged that there are whole families on the Reserve which are as truly Christian as birth, bringing-up, and Indian nature ren-

der possible; but one's opinion of the possibilities need not be unreasonably high.

The pagan does not regard himself, nor is he regarded by others, as being in any degree, or in any sense, inferior. He is not ostentatiously a pagan otherwise than in connection with the regulation feasts, such as those of the New Year (when the white dog is burned), the strawberry-dance, the corn-dance, and many others. Indeed, it is not characteristic of the Indian to be ostentatious in any capacity, except that of a brave, and, for the Iroquois, the days of bravery in his sense have long since departed. In his religious or ceremonial dances he may deck himself gorgeously with bead-work, cheap jewellery, feathers, and highly colored garments, but there is an evident lack of individuality about him notwithstanding. He seems to regard himself merely as an anybody; as a quite indifferent unit of his clan; as one who happens to have the necessary garments for such a display, and whose impersonal or clan duty it is to appear in any sort of grotesque costume he pleases. Other men please themselves also by attending the most solemn feasts in everyday clothing. Most of the younger fellows appear in fashionable tailor-made garb, with linen collars and bright silk neckties. The women dress, as a rule, more carefully and conservatively than the men, their chief article of apparel besides their gowns or dresses being a brightly colored shawl, either of some strong uniform color or of a large tartan pattern.

Now as to the worship itself. Originally it was, as a matter of course, purely of a natural kind; that is to say, it was founded wholly on the experience of the race respecting everyday phenomena, the occurrence of which was accounted for by explanatory tales based on anthropomorphic and zoomorphic grounds. Thus the sun would appear to have been regarded as an animate being, with whom, in time, became associated the Great White Wolf, if, indeed, it was not itself this very animal. Whiteness, it may be observed, was always associated in the Indian mind with the East, and, in time, with goodness, success, and health. The other cardinal points were also connected with their respective colors. In some mythologies the deer became the mediator of the sun, and in others the turtle. Among nearly all American peoples the rattlesnake was of supreme importance, yet we do not find this creature represented among the totems of the Iroquois. Animism, or spiritism, pervaded every nook and cranny of Indian belief. Not only could the lower animals converse with one another, and arrange plans to benefit their human friends, or plots for the discomfiture of their enemies, but the hills, the rocks, the streams, the trees, and every object in nature, as well as those produced by art, possessed a spirit.

They also had their equivalent of the "fairies" of the Old World—little people who held the power to assist men, or to play them infinite mischief.

Certain places were, to use a Scottish phrase, "no' canny." Among the Iroquois such places were mostly near rapids, or were

the rapids, but sometimes they were in the form of caverns, or of beetling cliffs, on the shores of rock-bound lakes. On approaching or in passing such spots placatory offerings of tobacco were made, and sometimes objects of considerable value were dropped into the water.

To dreams, our Iroquois, with all his congeners, was an abject slave, for he regarded them as the experiences of the first of his three souls, the second being the one which always remained with his body, and the third that which became visible as a shadow.

Roughly, this was the mental attitude of the Iroquois to nature and natural phenomena until the appearance of Ayontwatha, the "Hiawatha" of Longfellow, who, however, makes an ethnological muddle by assigning an Iroquois culture-hero to Algonkin legend. Ayontwatha was, first of all, a political reformer, if we may so dignify one who lived in such a crude condition of society; but his success in bringing about a confederation of the Caniengas, Senecas, Cayugas, Onondagas, and Oneidas must have exercised a very powerful influence in modifying some beliefs and intensifying others among all these "nations" or tribes.

We know not when he lived, despite attempts that have been made both by Indians and by whites to determine his date. But, in any event, there came a time when the spirit of change entered the minds of the Iroquois, and henceforth they became more adaptive and more modifiable than their surrounding Algonkin neighbors. Thus it was, in large measure, that they proved themselves such unconquerable and resourceful opponents of European, and especially of French, aggression.

After falling under purely British influence the number of professing Christians rapidly increased, but, as has already been pointed out, fully twenty-five per cent. have remained steadfastly pagan.

It is from this point that our study of Iroquois paganism becomes interesting, because it was impossible that Christian and pagan doctrines and practices could long exist in proximity without some modifying influences extending from the stronger to the weaker side. Long before this time, however, the Iroquois, in common with many other native races, had, perhaps unconsciously, adopted the idea of a Great Spirit from the missionaries, for in the aboriginal pantheon no one being of this kind exercised supreme power, or even seemed to take any interest in the work of the other spirits, an idea based no doubt on the customs of the Indians themselves, over whom no one man exercised absolute sway.

Having adopted the idea of a Great Spirit, the admission of some other beliefs became easier, not because they had any logical connection at all, for logic is quite foreign to the primitive mind, but because, perhaps of the familiarity consequent on intercourse with Christians, both white and of their own kind.

It was probably on account of knowledge arrived at in some such way that an Onondaga, by name Ska-ne-o-dy-o, who lived at the end of the eighteenth century (in 1790, according to some), de-

clared himself a prophet and claimed to have had intercourse with divine beings. His congeners, by this time, knew enough about Christianity to be in some measure prepared for a message from the Great Spirit, and their peculiar notions concerning soul-experiences fitted in with the announcement of Ska-ne-o-dy-o that he had been favored with an interview by four beings in heaven. Undoubtedly the Indians had heard of the Trinity, but as three is an unsatisfactory number to the Indian mind, we here have a reference to four persons, or the Four Angels, for although Ska-ne-o-dy-o saw only three, the fourth one was always present.

It is somewhat remarkable that although this revelation is of such a comparatively recent date, there is a good deal of confusion respecting what is known of the circumstances by the friends and relations of the prophet; but this only goes to show us how extremely difficult it is to get at the truth in such matters, and how little confidence we may place in tradition, if we demand exactitude.

All the stories, however, agree in the statement that Ska-ne-o-dy-o's revelation came to him while he was in a trance, so that we need not care whether this condition lasted for only a few hours or until he came to himself on the fourth day. He did not profess that he had seen the Great Spirit, but only the four beings who were commissioned by the Great Spirit to deliver His message. These were young men, dressed in the height of Indian fashion, and carrying bows and arrows. Here we have a compromise and a correspondence, the former as to the number, and the latter as to the office; for Christian teaching always introduces a medium of communication between the Creator and His people. As a matter of course, the four persons were Indians, and behaved in Indian manner, for otherwise the appeal to Indian minds would have lost much of its effect. Still, Ska-ne-o-dy-o perceived clearly enough that his people required a new gospel—one that would correspond in a measure to the altered circumstances in which they found themselves, and that would, to some extent, place them on a level with white men. Himself, no doubt, unaware that a belief in the Great Spirit was one of comparatively recent acquirement, he urged the people to offer prayers to Niyoh, the Creator, but he adds a touch of Indian anthropomorphism when he teaches that all such addresses must be made before noon, on the ground that, as the Great Spirit goes to sleep in the afternoon, he cannot then hear anything said to Him. These prayers were merely an adjunct to the old-time dances, which were to be maintained; for the angels said to Ska-ne-o-dy-o, "You must worship Niyoh, the Great Spirit, by dancing the turtle-dance at the new moon when the strawberry ripens. At the new moon of the green corn you shall give a thanksgiving-dance. In the mid-winter at the new moon you shall give another thanksgiving-dance. You shall have a thanksgiving-dance at the new moon at the time of making sugar. You shall dance at the new moon of planting time, and pray for a good harvest. You shall dance at the new moon of the harvest-time, and give thanks for what the Great Spirit

has given you." Oral prayer was therefore, largely, the result of European influence, something with which the Indian had become to some extent acquainted, and something that was of comparatively easy assimilation.

Even the matter of the prayers, however, is in the nature of a compromise, for the addresses to the Great Spirit are rather in the form of requests that He will command other entities to do their duty, the performance of which, but for His orders, might be done either reluctantly, or not at all. Take, for example (remembering meanwhile, the animism which pervades the Indian mind), the following petitions in the prayer which is used at the Burning of the White Dog in connection with the New Year festival :—

"We ask that the sun will continue to shine on us and make all things grow.

"We ask that the moon may always give us light by night.

"We ask that the clouds may never cease to give us rain and snow.

"We ask that the winds may always blow.

"We ask that the trees and plants may always grow.

"We ask that Thou wouldst send all sorts of animals for food and clothing, and make the birds increase in number."

In this modern form of prayer it will be observed that Rawen Niyoh, the Great Spirit, is addressed as controller and director; in older (but not the oldest) forms of address, which certainly are not prayers, the animistic and individually independent idea comes out strongly, as when, for example, at the green-corn-dance the head man, or speaker, says, "We thank the earth for all the things that grow for food," and at a Cayuga sun-dance, at which I was present, the old Chief opened the ceremonies by thanking the earth for having yielded grass, trees, tobacco and medicine, the sun for giving light and heat, the moon for making dew, and the thunder for supplying rain and for preventing serpents from coming up through the ground and destroying the people. And then comes this: "We thank the Four Angels for protecting us from sickness, disease, and accident, and the Great Spirit for providing everything and governing all things, although we cannot see Him and never will see Him, unless we are good." Here the stock and the grafts are quite distinguishable; the ancient phrases remain much as we may suppose them to have been for centuries, while Rawen Niyoh and the Four Angels are a plain addition without the remotest attempt to modify the old or assimilate the new.

The animistic and the anthropomorphic assert their sway once more when we are gravely informed that Rawen Niyoh also thought it would be a good plan to have some Thunderers, to whom he gave power to take charge of the whole world, telling them to use plenty of cold water in their work, as long as the world and the people should last. "He said to the Thunderers, 'You may go among the people just whenever you like, and give them all the water they need'; and we know that all the plants and trees are pleased when

the cold water comes to the earth. They are glad the Thunderers have not forgotten them. Niyoh also told the Thunderers to kill anything that might be unlucky to the people."

The Indian Angels vouchsafed to Ska-ne-o-dy-o other information, some of which had reference to what we may suppose the best of his people had always believed, but some of it undoubtedly inspired by Christian influence. Thus they told him that Niyoh intended men and women to marry and have families; that the children were to be treated kindly, not to be provoked in any way, not to be despised for ugliness or awkwardness, never to be whipped; that homeless children should be adopted by married persons without families; and that no person in want should be turned away hungry from one's door. In all this, as well as in what appertains to the holding of dances, or festivals, we have what is native, or nearly so; but when Ska-ne-o-dy-o declares that the four persons said, "Your people must not play cards," and "Niyoh says it is wicked to play a fiddle, and wrong to drink rum," he is profiting by his contact with white people. The reasons adduced for the last-named inhibition are truly Indian. "If," said the prophet, "you are drunk when you go hunting, the animals will smell you a long way off and keep out of your way; if you go a-fishing the fish will hide; if you are driving a horse the smell of the rum will make him run away; your dog will not like you; your corn and pumpkins and tobacco will not grow; if you try to dance or to run, or to sit still, you will have no sense; everything will go wrong."

It might be difficult to find a better illustration of purely aboriginal and illogical reasoning than this is. Incapacity to hunt, fish, manage a dog or a horse, or to cultivate plants is attributed to the intelligence of these things; they know that the man has been drinking too much, and for this reason fear him, or despise him; and it is only when the man tries to sit still, or to run, or to dance when drunk, that he himself will discover his lack of sense.

The inhibitions respecting cards and the use of the fiddle were no doubt intended by the "four persons"—i.e., by Ska-ne-o-dy-o—to prevent too much social intercourse with white people, the former on account of the Indians' well-known gambling propensities, and the latter owing to their equally notorious desire for the strong drinks which usually accompanied such festivities a century ago. It was no doubt also intended to prevent any assimilation of the native feasts or dances with the white people's social gatherings—perhaps, indeed, this was the main consideration.

Gambling in general, however, was not forbidden, only gambling with cards. The Indian prophet was too well aware how utterly impossible it would be, even were he wishful, to abolish this practice among his people. Twice a year, at the great public feasts, it is allowable to play for stakes; and at home, or elsewhere, the people can always do as they please in this respect.

The feasts or dances so often referred to were, and are, a stern necessity. Without these, life to the pagan Indian would not be

worth living, and one of them is held on every possible occasion in addition to the regular, seasonable, ceremonial affairs to which reference has already been made. But, in accordance with present custom, some of the latter are set apart for thanksgiving. Now the giving of thanks (in our sense) for anything is wholly foreign to Indian nature, as, indeed, it is perhaps to aboriginal nature everywhere. It is an acquired method of expression, and whether the sentiment of gratitude has yet been acquired is another question.

Agreeably to the totemic idea, thankfulness is out of place, or rather has no existence in any of life's conditions. For primitive man in his tribal relations, individualism has but a hazy meaning, if any at all. He gives as freely as he takes, neither expecting nor giving thanks, but his associations with us have taught him to comply with form at least, and thus in some measure to remove from himself the reproach of the white man respecting Indian "ingratitude." We find, therefore, that Ska-ne-o-dy-o has introduced expressions of thankfulness in connection with some of the ceremonial feasts, but it is also observable in the older and slightly adulterated dance-speeches that not a word of this kind occurs. Take, for example, the address of the head man at the Burning of the White Dog, notwithstanding its ostensible appeal to Niyoh. Following what may be called the invocation, he asks that the sun, moon, clouds, and winds may continue to perform their duties; that the warriors, young men, and women may be preserved in health and strength; that medicine-plants and fruit trees may continue to grow; that game may be abundant for food and clothing; and he concludes with the self-righteous and unconsciously humorous wish, "May the scent of the tobacco I have thrown on the fire reach Thee to let Thee know we are still good, and that Thou mayest give us all that we have asked."

With the introduction or adoption of the belief in a Great Spirit—"One, you know, that bosses all the other spirits, and the little peoples, and Ta-ron-ya-wa-gon, and Ong-we-ho-gon, you know," as a Seneca once explained to me—it became necessary to provide some means of communication between heaven and earth in addition to prayer and thanksgiving, which, alone, are somewhat too intangible for this purpose. The Burning of the White Dog was therefore seized as a fitting occasion for the sending of messages heavenwards. But this long antedates the appearance of Ska-ne-o-dy-o, who actually forbade the ceremony, probably because it was a subject of ridicule among white people. Notwithstanding both circumstances, our Canadian Iroquois pagans maintain the custom in connection with their annual New Year's dance at the time of the February new moon, when near the close of a ten days' celebration the master of ceremonies reverently says :—

"Great Master, behold here all of our people who hold the old faith, and who intend to abide by it.

"By means of this dog being burned we hope to please Thee, and that just as we have decked it with ribbons and beads, Thou wilt grant favors to us, Thy own people.

"I now place the dog on the fire that its spirit may find its way to Thee who made it, and made everything, and by this means we hope to get all we want from Thee in return."

In full accordance with Indian belief, the spirit of the dog, on reaching Niyoh, will apprise him of the state of affairs on the earth, a belief that not only proves a want of faith in the adequacy of prayer alone, but which could not have had any reason for its existence before Rawen Niyoh himself was introduced to "boss all the other spirits." But the killing, burning, or sacrifice of a white dog has always, and everywhere over the northern part of our continent, possessed some mysterious influence. In our archaeological report for 1898 some pains have been taken to summarize our knowledge of this custom, whereby it appears that not only with the Iroquois, but among the Algonkian, Athabaskan, and Siouan peoples, as well as among the more highly cultured Aztecs, the custom of using such an animal in one or other of these ways was very generally observed.

It may suffice in this connection to state that in the opinion of General Clark, of Auburn, New York, who has made a special study of Iroquoian mythology, the white dog is now employed as a substitute for the white wolf, which formerly represented the sun; and Dr. Brinton, quoting Von Tschudi, approves the statement of the latter that "white dogs were closely related with cosmogonical and culture myths" in many native religions.

However this may be, the point to be observed here is that our present-day pagan Iroquois, having long since forgotten the original significance of the rite, now attribute mediatorial or intercessory powers to the white dog, the spirit of one of which they despatch annually to carry a message to Niyoh, or Rawen Niyoh, the Creator. Nothing can be more certain than this, that when there was no Great Spirit there was no need for the services of a messenger.

But notwithstanding the evident influences which led to this new idea respecting the office of the white dog's annual visit, implying as it does a heaven, as distinguished from a mere "happy hunting-ground," it is worthy of notice that our Indian friends did not take kindly to the idea of a hell, which they have left in the undisturbed possession of the white man. Punishment in any case was objectionable to the Indian. It may be difficult to reconcile this statement with our knowledge of the cruelties he inflicted on his enemies, whether white or of his own blood; but his purpose on such occasions was rather to maintain the honor of his totem, or of his tribe, by rendering, or providing, an equivalent for the sufferings of his own people when they were in the enemies' hands, as well as with a view to test the power of his captives' endurance, hoping, if possible, to make them evince signs of pain, and thus prove themselves to be only women. Our pagan Iroquois, then, has no hell,

but his leniency in this respect is more than counter-balanced by his exclusiveness respecting heaven, where he admits no white man. On the New York Reserve it is asserted that George Washington, on account of his goodness to the Indians, has been permitted to go half-way, where he remains speechless, and accompanied by his dog; but on the Grand River Reserve, in Ontario, I have never heard but one Indian refer to this exception, and it is not improbable that in time it will be wholly forgotten among Canadian pagans.

The remark has often been made that certain groups of people in various parts of the world have failed to keep pace with neighboring groups through sheer inability to advance beyond a given line. Among ourselves civilization is a comparatively slow process, and with some of us it is of much slower development than it is with the mass. American Indians are not a progressive people. They assimilate European notions very slowly, and, at best, somewhat imperfectly. Tradition and usage are more powerful than appeals to action along new lines, even when the advantages of the latter course are made plain. It is only when tradition has been deprived of its power by the segregation of individuals from national or tribal associations that tradition itself ceases to govern.

If we judge the pagan Iroquois thus, we shall wonder that they have been in any way modified by European contact so far as their religion is concerned, for they are thoroughly separated from their Christian fellows in all that concerns their myths and superstitions. It is not with them, as it is with us, a matter of disputation concerning what constitutes the true religion, for according to their philosophy it is not necessary that all should be of one faith. The white man's God need not be—indeed, is not likely to be—the same being as the Indian's God, and here we see how very superficially after all the idea of a Great Spirit affects the aboriginal mind. It has never been made to fit exactly into the Indian pantheon, which recognizes no paramount being, but leaves the thousand-and-one phenomena to the good or bad offices of a thousand-and-one independent spirits, or, perhaps it would be more correct to say, to spirits each of whom is independent in his own sphere, for it is within the power of any one of these beings to create so much trouble on his own account as to compel one or more of the others to "come to time" in any matter of dispute.

The wonder, then, is, not that Iroquois paganism has been to some extent modified by Christian influences, but that it has been modified so little. One must mingle with these people in their homes, in the fields, at their games, and in their long-houses in connection with their feasts or dances, to appreciate fully their mental attitude in this respect. They are utterly unconscious of any similarity between their own and the white man's religion. They believe that Niyoh, the Great Spirit, has always formed a part of Indian belief, and consequently have no difficulty in accepting the story respecting the four persons or angels he commissioned to communicate with Ska-ne-o-dy-o. Similarly they have no hesitation in the

offering of specific thanks to Rawen Niyoh, and have perfect faith in the intermediary services of the white dog. If we add to these a few suggestions respecting conduct, based on the Christian code of morals, we have about all for which Iroquois paganism is indebted to European culture after a period of more or less direct contact, lasting for three hundred and fifty years. It is questionable whether many other forms of paganism have remained so unchanged for the same length of time, and in anything approaching similar circumstances. It is, indeed, a matter of doubt whether several forms of Christianity and Mohammedanism have not suffered or benefited to a greater extent, even during the space of the present century.

Here we have in almost their pristine simplicity and crudity the music, the songs, the dances, the speeches, and the ceremonies of old, but the origin and meaning have long since been forgotten. Their maintenance is purely conservative. Even the significance of the words of the song is lost, and in many of the ceremonial rote-speeches in connection with the feasts, words and phrases are employed respecting which even the oldest medicine man has no knowledge. In this, however, they are only a few degrees worse than ourselves. The same is true with regard to such customs as the "scattering of ashes," the spraying of heads with sweetened water, the anointing of heads with sunflower oil, and several other rites.

It is interesting, also, to note that all these are indulged in by the half-breeds, and by some who are more than half white, seemingly with quite as much zest as by those of purer or wholly pure Indian blood. It seems somewhat anomalous, at first sight, to observe, engaged in a dance or a dream interpretation, persons of all shades of color, from the darkest (which is darker than mulatto) to a tint that conveys only the slightest suspicion of Indian blood.

But the old-time ways are doomed, and will probably disappear as a system long before the people die out, for the young men mingle more and more with their white neighbors, the young women frequently find employment as domestics in "white houses," and parents are gradually losing their grip of the ancient forms, although they cling tenaciously to the superstitions these typify.

Meanwhile the condition is an extremely interesting and instructive one to the anthropologist, one which in many respects is unique in the history of the world.

THE PHILOSOPHY OF FOLK LORE.*

Folk-Lore is crude ethnology, crude cosmogony, crude everything in science, but beyond all it is crude history, for history to a greater or lesser extent comprehends all the others.

Folk-Lore is of three kinds—purely mythical, purely traditional (or a combination of these), and proverbial.

* This paper was read at a meeting in Hamilton, June 3rd, 1888, and has already appeared in print, or, rather, as a mass of misprints. Since the date of publication a number of requests have been made for copies of the pamphlet (now out of print) of which it formed a part.

Before attempting to distinguish what is the one and what is the other, let us try, for the time being, to divest ourselves of everything pertaining to what we call civilization—this is not an easy task, but let us make the attempt to forget that we can read—that we ever met anyone who could read, that we know scarcely anything of ourselves, and never saw anyone who knows more. If we succeed in so-doing we shall be for the moment, in imagination, savages.

But even as such we are in possession of a faculty the marvellousness of which exceeds, or is at least equal to, the mystery of life itself—the faculty of thought. All animals think, but in most cases their thoughts are confined to food-supply—or, in other words, their thoughts arise from the demands of the stomach—they are simple. In some of the higher orders thought embraces the interests of the species, and may be admitted as being of a compound character, thus approaching in some degree to human thought, which is so complex in its nature that we designate it “Reason.” In other words, the lower animals perceive—man conceives.

Man is a complex thinker; hence, is chief measure, what we now call Folk-Lore. The mythical is purely fabulous; the traditional usually has at least a thin substratum of fact; and the proverbial may be referred to as condensed experience pithily expressed. Now, complexity of thought gives rise to inquiry, which in time becomes inquisitiveness, and, subsequently, investigation. Untutored man at a very early stage in his existence recognizes that manifestations or natural phenomena, are of two kinds, the regular and the irregular, or the normal and the spasmodic. Day after day the sun appears and disappears—with wide intervals the moon comes and goes—the tides operate with regular irregularity; but thunder and lightning, rain and snow, wind and calm have no stated periods. Herein are involved problems he is determined to solve, and which to his own satisfaction he does solve after he has fully accounted for his own appearance in some way equally satisfactory to himself, whether by having emerged from a hole under a hill, by having dropped from the sky, by transformation from pebbles, or in any other of innumerable and equally bizarre ways. Creation myths alone, whether of man only, or of the world at large, might occupy our attention for hours, but all that is necessary for the present purpose is to point out that man’s own origin has always been to himself a subject of profound contemplation, the mystery of which he generally clears in a manner highly creditable to his own clan or tribe.

Now, assuming that we have placed ourselves in the mental attitude of primeval man—What then? We are conscious of our existence, and of our surroundings—the hills, the streams, the vegetation, the beasts and the birds; and we are equally so of the heavenly bodies, and a natural phenomena.

It will at once be observed that by no possibility could any but a first pair have been thus brought face to face with so many mysteries simultaneously, but, in any case, the mysteries were there,

and man accepted as his duty the task of accounting for them in some way most consonant with his own intelligence. By this it is not meant that he said to himself or to anyone else, "We must try to find reasons for all these things," but simply that as a result of the fact that he was a complex thinker, the several subjects forced themselves upon his attention, and he formulated this or that theory in line with the facts of his experience. Hence it will appear that myth-makers were not liars or imposters—they were gropers after truth, but, proceeding on false premises they arrived at false or absurd conclusions, even, indeed as many more intellectually gifted ones have done in our own day with all the advantages of learning, and the knowledge of centuries to guide them.

It would not be easy to say just which of the numerous nature-problems untutored man first undertook to solve, or the order in which he took them up. Perhaps no two groups of men approached them in the same order, and we are absolutely certain that no two arrived at exactly the same conclusions, as has already been indicated.

It is admissible, because natural, however, to suppose that our primitive ancestors first tried to account for their own presence here, and next, perhaps, for that of the lower animals on which they were dependent for subsistence. In many cases it is known that the latter were not only believed to have taken precedence on the scene, but that from some of them sprung the human race. It is unnecessary for the present purpose, however, to do more than allude to the fact that this has always proved a prolific source of myth, and one which drove even so highly cultured a people as the ancient Greeks beyond the verge of absurdity, for an explanation.

Then, too, the presence of the earth itself must be accounted for. In Indian legend we have many examples of how this was said to have been brought about, and savage folk all over the world entertain their own views on the subject, just as they do with regard to the existence of everything else.

While the belief has been entertained that the world, the sun, the moon and the stars have always existed, some declare that they had a beginning, and profess to account for how they were brought into being, while nearly all unite in personifying the heavenly bodies, and not a few, too, so regard the earth.

It would appear, therefore, that the only explanation satisfying to undeveloped minds is that which attributes life, and consequently volition, to inanimate objects. The sun and moon travel across the sky—therefore, they know what they are doing—they do so purposely! Eclipses of these bodies are attempts on the part of great bears, or lions, or dragons, or serpents to destroy them and leave the people in total darkness, and here we detect one of the first forms of an almost universal belief in bad spirits. Not only are the orbs personified—they are deified, and this marks another step. The sun especially becomes an object of worship, in whose honor

fires are kept constantly burning, by the attendance of persons consecrated for this very purpose.

Within the last twenty-five years there has arisen a school of thinkers and writers professing to interpret almost every myth, to explain every child's game, and to account for many hitherto inexplicable customs by referring them to old-time sun-worship, and star-worship, and while it is almost certain that this theory has been extravagantly overworked, there is, nevertheless, just as little doubt that a large number of our usages are directly, even although remotely, connected with the worship of those bodies, on the part of our extremely remote forbears, for it must be remembered that not only do "Superstitions die hard," but their ghosts remain with us very persistently, and we become so familiar with their presence that we forget they are ghosts. Wholly gratuitous as it may appear, yet I cannot help recalling in this connection that every day speech contains references to such beliefs in words and expressions like "My stars!" "ill-starred," "unlucky star," "good star," "disaster" and others, just as Sunday, Monday, and Thursday remind us that the sun, the moon, and thunder, were so highly venerated as objects of worship that these days were dedicated to them.

Animism, or spiritism, is also attributed by primitive man, not only to trees, rocks, hills, streams, and even to the air, but to clubs, bows and arrows, spears, canoes, clay pots and everything else of human manufacture, and an immense field for the invention and propagation of myth lies in the belief that all the lower animals are gifted with reasoning power, and the ability to communicate their thoughts to one another.

But traditional folk-lore is on a totally different basis. It may be, and if pure tradition, must be, a statement of fact, the memory of which has been kept alive by the people for ages, but in most cases traditional stories or legends have become so intermingled with what is mythical or fictitious, that due allowance must be made for exaggerations. There is probably not a civilized country without its traditionary lore. Instances connected with the mother countries we all remember—some of us vividly, and even America, new as it is to us, has its Europeanized forms of traditional folk-lore.

Tradition becomes corrupted either consciously or unconsciously on the part of the reciters.

Conscious variations result largely from exaggerations due to a desire to produce effect, and may be either intentional or unintentional. A certain hero was, perhaps, first referred to as a very big man, and in due course he becomes a man between six and seven feet in height—then a man nearly seven feet high—next, quite that height, and subsequently there is scarcely any limit to his proportions.

Again, a great one may be spoken of as having equal ability in the arts of peace as well as of war: in the mouth of some storyteller this takes the form that he has as good a head for the one as for the other, next that he has a head for each, then that he actu-

ally has two heads, after which the number may be increased to suit the convenience of the narrator—hence the stories of many-headed giants.

Variations of the unconscious description arise frequently from stupidity, or sheer ignorance. Certain words in a story may be capable of two or more definitions, or they may be similar in sound to some others of totally different signification, and the wrong word or the wrong meaning is seized upon, because, in all probability, it presents the subject in a more wonder-working or more grotesque manner. An old Norman French word becomes in English mouths *echat*—next *ekat*, and in course of time the word itself falls out of use, and eventually becomes forgotten, but the story lives of a clever poor boy who long ago rose to wealth and fame by means of his *echat*, or trading venture, and to-day we are delighted to hear the tales about Whittington and his cat.

I have known a boy exactly of my own age who was very fond of listening to his grandmother's old-time tales, one of which was to the effect that a certain man once discovered an immense store of wealth in gold and silver coinage that had been hidden by a colony of rats, and so much of this money was there, that the lucky finder was enabled with it to erect for himself one of the grandest palaces in the whole kingdom. Now, wholly apart from the probability of the story, which is quite explicable, it is to be noted that this boy, having literally interpreted the words: "Built a fine palace with the money," pictured to himself the four walls constructed of sovereigns, crowns, shillings and sixpences carefully placed beside and above one another, and that when repeating the tale to his companions he always put it in such a shape that this meaning was beyond doubt!

The well-known fondness of young folk, and of simple-minded older ones for such recitals is probably the principal reason for the absurd forms that lore of this kind assumes, and the instances given may suffice by way of illustration, although it would be easy to cite others by the hundred, and the point desired to be arrived at is, that whether the variations were made consciously or otherwise, there was usually no intention to falsify or deceive.

It would, however, be folly to deny that the folk-lore of every land is colored to some extent by intentional falsehood, but even this possesses a degree of value, as will immediately be noted.

Now, it is quite natural, in view of what has been said relating to the origin of myth and the development of tradition that the question should crop up, "Of what use is it then, to pay any serious attention to folk-lore, seeing that in one case it consists of nothing but a series of extremely vague guesses, and in the other, is only a tangled tissue, made up of some truth, some exaggeration, and much that is wholly fictitious? And, quite as naturally, the reply at first thought might be made—it is of no use at all. Indeed this was the way in which, until our own day, the subject was regarded,

but it is a very superficial way to look upon the matter. Delving a little deeper, we come upon paying ore.

Man everywhere is much alike, making due allowance for his surroundings—we are all prepared to admit this, when we regard ourselves physically, but the statement holds good also, if for “man” we substitute, “human nature.” We all think, and we all think along similar lines as far as these lines extend. The lower a human being is in point of development the shorter is his line of thought, but short as it is it corresponds with what were the primitive lines of those who have attained to higher planes in the scale of civilization. To one and another branch of our race it has been given to make greater or lesser advances in mentality.

As Britons we may claim with pardonable pride to belong to those, who, before all others, accept the belief in universal brotherhood—that “all men are born free and equal,” yet we must admit that all races of men do not possess, or do not exhibit the same capacity for advancement. Some are to-day as they were a thousand years ago—in little more than intellectual infancy—some in boyhood, and not a few in stunted manhood, and yet when we compare the folk-lore of these with each other, or with our own we are surprised to find so many resemblances, because we are all human, and because it is impossible for any human being to get away from himself. A man’s loftiest conceptions are limited by his power of imagination, his power of imagination is limited by his knowledge, and his knowledge is limited by his capacity to improve.

In primitive conditions of life we think primitively, that is to say, with insufficient grounds on which to arrive at true results—hence, myth, as already pointed out; and, in more highly organized conditions, of what, in its best sense, we call society, tradition is formulated.

Now, to compare myths and traditions—to trace them to their various sources—to follow their development, and to ascertain their application, is to study the philosophy of folk-lore. By strict methods now well understood we may connect the local legend of some obscure parish in Britain with a story in Persia, or in Hindostan, while, on the other hand, similarities in recital may be assigned to totally different origins. In many parts of the world, for example, we find traditions relating to a great deluge, and while some of these probably point to one such great cataclysm, it is likely that others refer to different events, although many learned writers claim that all bear reference to the Noachian Flood.

But interpret myth and tradition as we may, their existence brings us face to face with the fact that man everywhere has attempted to account for himself and his environment, and in so doing has exemplified similar phases of thought. It was admitted a little while ago that some times untruths have found their way into folk-lore purposely, but the value of a story is no wise lessened on this account, because falsehood being merely one phase of thought is limited by the same conditions and governed by the same laws. It

is utterly impossible for a man to formulate a lie beyond the bounds of his knowledge, and the grossest untruth that one can put into words for such a purpose is of great value in showing us the limits of imagination in a given direction, as based on the individual's own, belief or experience.

The greatest myth-makers, and the greatest encouragers of myth have been the shamans, medicine-men, priests (or whatever they may have been called) of the various cults. To people of this class, we are prone to attribute mercenary or other selfish motives, without taking into account in the first place that they themselves fully believed what their ancestors believed, and, in the second place, that old views were not seldom confirmed, and new ones originated in their minds by virtue of the fasts, flagellations and other austerities they practised.

A most interesting and instructive department of folk-lore that has scarcely been more than mentioned up to this point, and one which would require many papers to itself, is that which relates to national proverbs, combining as they do much that is superstitious, with a large embodiment of common-sense, and constituting on the whole the very best means of arriving at the heart of a people.

But perhaps enough has been said in a crude way to emphasize the thought that there is a philosophy connected with folk-lore, and that the department of human knowledge so-called is not a mass of mere babblements fitted only for our lighter moments.

The folk-lore of Canada, especially of Ontario, and the other western Provinces, is mainly a heritage from the mother countries; still we are not wholly without material of the traditionary kind, quite distinct from our rich aboriginal field, and it should be the duty of some one or more persons to set about collecting these waifs and strays.

There is ample material in this country for a valuable book embodying local superstitions regarding weather, crops, diseases, lucky and unlucky days, charms, and even ghosts, nearly all perhaps possessed of European coloring, but in many instances sufficiently modified by transplantation to give them a peculiar value.

I have no faith in what is called *Psychical Research* in our day, beyond the limits of what I have alluded to in this paper, namely, a study of the intuitive, or creative, mental forces which have from the beginning led our fellow-beings to personify and deify prominent natural objects, to people the world with monsters and spirits, and to invent apocryphal stories to account for apparently inexplicable events.

It is some such line of study that I would designate as the philosophy of folk-lore.

SOME ETHNOLOGICAL OBSERVATIONS IN SOUTH AFRICA.

BY GEO. E. LAIDLAW.

During my period of service in South Africa, 1900 and 1901, I was enabled to make but few ethnological notes on account of the rigor and exigencies of the campaign. Spending some five weeks in Cape Town, one was enabled to view the heterogeneous mass of different colored people that probably has but few equals in other cities, certainly not in western cities; all sorts and conditions of crosses between different negro stocks and various races of whites, together with pure negroes, Malays, Javanese, Hindoos Chinese, Arabs, Syrians, Armenians, and other Eastern peoples in their respective costumes, make up a kaleidoscope of local color never to be forgotten. What the product of these in the future will be, as well as the best means of handling the immense native population "up country," is a problem, the solution of which can only be surmised at present. Thus South Africa—the fountain head of the black race—will have a more intricate negro problem than the United States, inasmuch as she is controlled by several European peoples, while the negroes in the United States are under only Celto-Saxon supremacy.

At Durban, in Natal, on the east coast, which is in close proximity to the Zulu country, one could not be but struck with the much finer physical development of the natives, who are principally Zulus, their territory extending up towards the northern interior of Natal Colony. The Japanese "rickshaw" has lately been introduced in to Durban, and the "rickshaw" men are as a rule, Zulus. These most athletic young men of a magnificent physical race leave their native kraals and come down to the coast towns to be "rickshaw" runners. They generally last but a few months; becoming very heated with their work they plunge into cold water, and thus contract pneumonia and other lung troubles, which shortly carries them off, for when ill they become very despondent, and do not respond quickly to medical treatment, if indeed they get it instead of that of their own witch doctors. It is a pity, too, for this class of men are very original and unique. They usually wear a headdress representing some animal or bird, and frequently manage to perform some antics or actions of the creature that they represent during their work, giving imitative bellows, snorts, squeals, and screams to sympathetic patrons. Another noticeable fact amongst the Zulus in Durban and other towns, and not observed beyond Zulu territory, is that when engaged in any outside work, either collectively, or individually, they always sang some chant or song, which on enquiry proved to be addressed to the work which was about to be performed; when in gangs one man took the lead, whilst the rest joined in repeating the words of the leader. These songs are always in native tongue, and practically are the same either in un-

loading a ship at the docks, or railway tracks up country. I recollect one energetic individual working by himself repairing a trek road, singing in a deprecatory tone. His song on being interpreted resolved itself into information which he was imparting to the stone, as to what was going to be done to it. This, I understand, is the base of all their work songs, they address their work or the object to be worked upon, as being animate, and inform it what is going to be the immediate future proceedings. I failed to elicit whether they believed that these, supposedly, animate objects, could understand what was being addressed to them. The Zulus are mentally, morally, and physically, the superior native people of South Africa. They have an exceedingly high standard of morality, the virtue of the women being a well-known fact. Until recently any lapse from the path of virtue was punishable by death to both parties, administered by the command of the chief, and was carried into effect by the use of the assagai. Even until quite recently poison was used for the same cause. This code of morality does not include the absolute purchase of a woman out and out; said purchase being transacted between the buyer and the girl's parents or natural guardians, and being recognized as a legal form of marriage, the female taking her wifely place in the domicile of the purchaser. Before the Zulus came under British rule women taken in war or in raids on other tribes were used as concubines. Amongst wealthier individuals possessing several wives, separate huts were allowed to each wife, but all the huts were contained in one kraal. The children of concubines had no hereditary right to property or chieftaincies. Living in a well-favored country, and formerly possessing abundance of cattle, sheep, and goats, and the earth yielding abundance of mealies, pumpkins, and other vegetable food for the mere scratching of the surface, no wonder that the Zulus developed their fine physique and superb carriage, their physical characteristics being tallness, breadth, and squareness of shoulders, coupled with the straightest of backs and high arched chests, carried well forward. Their limbs are massive, with well-shaped hands, and ordinary sized feet. Though stout people, extreme fatness is observable only amongst the women, and is counted a mark of beauty. To produce this stage, a diet largely composed of mealie pap and milk is resorted to, the men not drinking milk saying it is only fit for women and children.

The universal habit of wearing rings on their legs above the calves, has a tendency, as they believe, to develop the calves to an abnormal extent. These women also wear similar articles of brass, copper, or iron, on the arms at the wrist and above the elbow, and on the legs at the ankles. They are often put on when the wearer is young, and accordingly as that person increases in growth these become permanently fixed and can be removed only by cutting. It is no unusual sight to see a Zulu—or other native for that matter, as the custom is universal—having three or four dozen of these articles on his limbs. These

PLATE 1.

Fig. 1.—(16,862). Anklet of small native wrought iron "sleigh-bells," from Bihe, Angola. Mrs. John Currie.

2.—(22,241). Small wooden pillow, carved from one piece, Zululand. Lieut. Geo. E. Laidlaw.

3.—(22,129). Horn comb, Basutoland. Lieut. Frederick Hamilton, Globe correspondent.

4.—(16,860). Native copper, Garanganzi country. Mrs. John Currie.

5.—(22,131). M'kosa pipe, Zululand. Lieut. Fred. Hamilton.

6.—(12,438). Female wooden figure, Brass River, Guinea coast. W. P. Byrch.

7.—(16,848). Spirit-dance axe, Bihe, West Central Africa. Mrs. John Currie.

8.—(16,849). Musical instrument (iron tongues on wooden board), Cisambo, Angola. Mrs. John Currie.

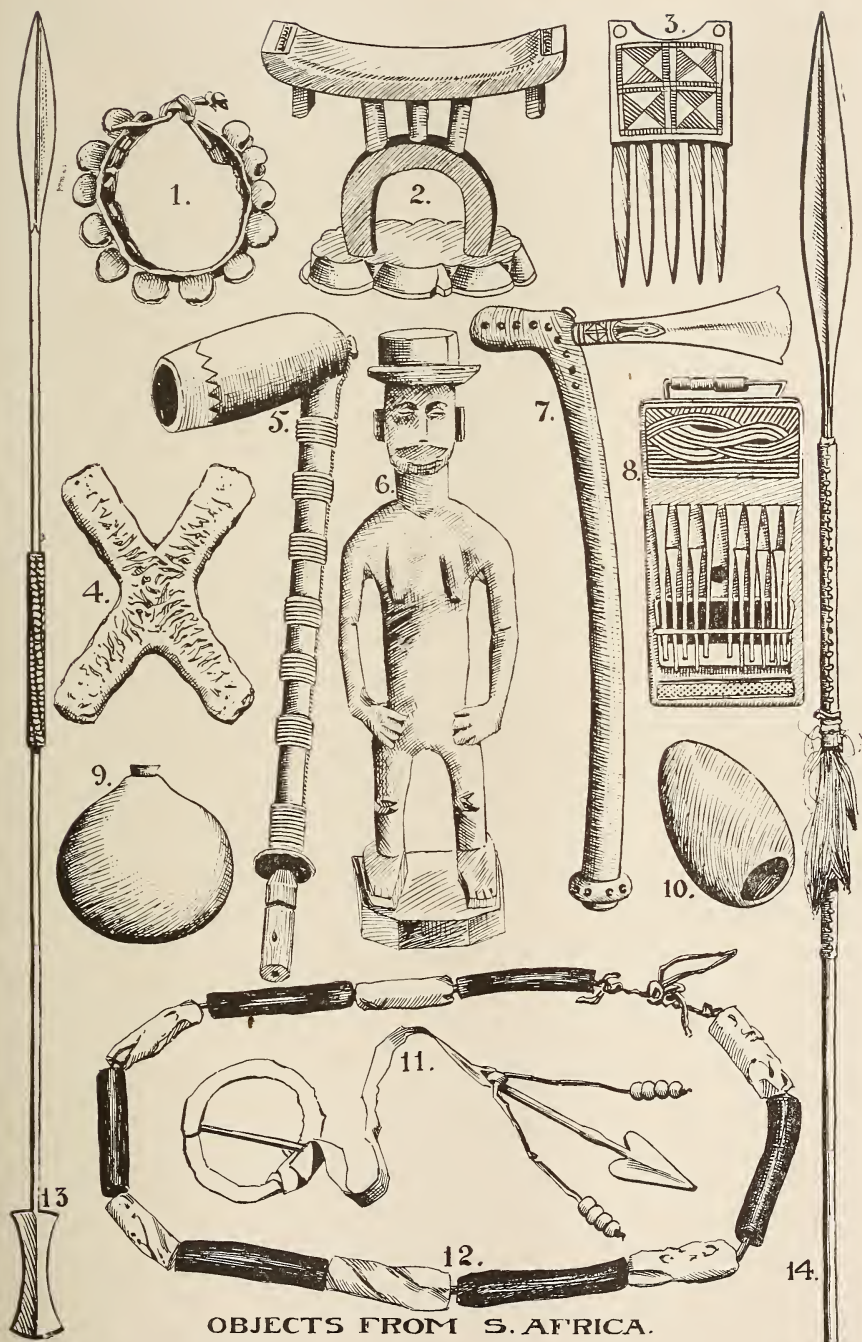
9.—(22,114). Snuffbox, made from a small gourd, Zululand. Lieut. Fred. Hamilton.

10.—(22,116). Zulu doppy, or private purse, Elandsfontein. Lieut. Fred Hamilton.

11.—(22,109). Nose cleaner. Facetiously known as a "pocket handkerchief." Procured from an old woman 20 miles north of Sand River, Orange River Colony. Lieut. Fred. Hamilton.

12.—(22,127). Necklace of shell and wooden beads, Basutoland. Lieut. Fred. Hamilton.

13—14—Assagais or spears, Angola. Mrs. John Currie.



OBJECTS FROM S. AFRICA.

wristlets, armlets, anklets, or bracelets are woven out of very fine pliable wire by the natives themselves, and have a thickness varying from that of an ordinary straw to that of a lead pencil, and are valued at from 3d. to 1 shilling. The other portions of native dress used in ordinary wear, are sandals made of hide, sun dried, with a loop to go over the big toe, used occasionally, and the "moocha," which is a girdle with a small apron of about six by nine inches, made of skins of small monkeys or other diminutive animals, hanging in front, and a tuft of tails of similar animals hanging behind: this is worn by males. The females now use short petticoats of cloth, except in remote kraals, where their ancient dress is in vogue, namely, a skin petticoat or apron. Skin karosses are used at night to sleep in, and on cold wet days. The trader's gaily colored "Kaffir blanket" is now taking the place of the kaross. In extreme hot weather clothing is discarded almost altogether, the younger children of both sexes wearing nothing at all excepting an ornament.

In preparing for a public "beer drunk," or a dance, or other native festival, both sexes deck themselves out with as much native finery as they can obtain: men with feathers in their hair, and tufts of feathers and hair tied on to their arms above their elbows and their legs below the knees. A great deal of bead-work in the way of necklaces, belts, and collars is worn by both sexes.

It is extremely rare to find any naturally deformed individuals amongst the Zulus or kindred tribes. The features are not unpleasant, and in many cases have a decidedly Hebraic cast.

The word native in this article means a negro. The same word in South Africa—as used by newspapers, business men, and others, refers to a Hindoo or an East Indian. All negroes in South Africa, with the exception of perhaps the almost extinct dwarf Bushman, are called Kaffirs by the Boers and colonials. The hybrid negro at the Cape rejoices in the cognomen of "Cape Boy."

"Kitchen Dutch is the language generally used when addressing negro servants and work people. This bears the same relation to High Dutch that the French-Canadian "habitant" patois does to Parisian French. Kaffirs that come in contact with whites in the way of employment and business are ever so much more docile, willing, polite, and obedient than the north American negro. No doubt from being near their primitive source, they have the stronger animal passions, as is usual with more primitive peoples than their American relations, and do not possess the same facilities for education, business, independent work, and political advancement. They have been brought to their present stage of submissive docility by loss of territory and a long-continued and frequent use of the "sjambok" and rifle.

The Boer method of negro employment is based on the maximum of service and minimum of pay. A Boer farmer does not do manual labor himself; he has Kaffirs. These Kaffirs are permitted to settle on his farm in kraals, for each hut of which they must pay £1 per annum taxes to the Government. They are allowed a mealie

patch sufficient for their needs, and a few sheep or goats. They render service such as herds, farm laborers, or household servants at low wages, thirty shillings per month being a high rate for contract labor on roads, railways, and teaming in the public service. It is said that sometimes after several years' service a Kaffir will have to content himself with an ox from his Boer "baas."

Independent Kaffir chiefs or head men of large kraals have to furnish so much labor on the Government roads, according to their district. Labor to be performed when called upon.

Natives living in unsurveyed lands in the Transvaal still have to pay the £1 tax per hut, but may have as many goats, sheep, or other stock as they wish, and are thus practically independent of work, though large numbers of them work in the mines at Kimberley, Johannesburg, Klerksdorp, Jaegersfontein, and other places. The ordinary negro will work very faithfully. The Zulus make by far the best personal and domestic servants, being reliable and truthful, priding themselves on their honesty, morality, and fidelity, but can not be forced to work; in this way they resemble the American Indian and many other people. The kraal Kaffirs or "Red Kaffirs" are those who have not come under the influence of civilization. They live their old wild life, with slight modification due to their present environment, such as decrease of game, and in not being permitted to indulge in petty tribal wars, or carry modern arms—the Swazis and Basutos are exceptions to the latter condition. Their immoral dances and "beer drinks" are also put down, the war dance being the only one allowed.

The "beer drink" is sometimes indulged in when they can do so without interference from those in authority, and it consists of an invitation from one kraal to another to drink beer. The beer is made from mealies, or Kaffir corn—a very small grained corn, different from the large kernels of the mealies, which resembles our ordinary Indian corn, or the common maize, the process of manufacture being short and simple. The grain, a little on the green side preferably, is crushed on a flat mealing-stone, similar to a Mexican "metate," by another smooth, rounded stone, generally ovoid in shape, and of a size large enough to be held conveniently in both hands. The mass of crushed grain is put into large earthenware pots and covered with water. This is allowed to ferment, and is then strained, when it has the appearance and taste of buttermilk, and an individual has to consume a large quantity before intoxication ensues. These "beer drinks" end in an orgie, in which both sexes take part in dances and songs, moral and immoral, and in boastful speeches.

The "Red Kaffir" corresponds to the "Blanket Indian" of America. Between the "Red Kaffir" and the negro who is civilized and settled down on his farm, or to a trade such as that of a smith or a carpenter, there exists another class, semi-civilized, who live in kraals, when not employed, and who only work to gain enough to support them for some months in idleness and ease, decked out with

tawdry finery, and cast-off European clothes. This class finds employment as navvies on railway lines, and roads, also in the mines and on large stock farms, and as drivers on trekking expeditions. The civilized negro possesses a status similar to that of the civilized Indian in America. with the exception of much less union in marriage with the whites than falls to the lot of the Indian. Indeed, marriage between white and negro, or those having negro blood in them to any extent is seldom heard of in South Africa.

Numbers of Zulus and Kaffirs are enlisted in police forces. The Natal government employ a large number of Zulus to police their country. These are attached to, and act in conjunction with, the Natal government police on the border, and being officered by white men, do very efficient service in controlling their own people. In towns native policemen are also used, and are found to be very effective in quelling disturbances and suppressing minor crimes amongst the colored population. They do not arrest white men perpetrating crime, that is left for the white policemen, but may be used in tracing up crimes and misdemeanors committed by whites, and they are also employed as guides.

As the South African negro has an inordinate love for liquor or intoxicants, equalling, if not surpassing, that of the Red Indian, the authorities **do not permit the selling of** those commodities to the natives, the penalty being imprisonment or a heavy fine. Uncivilized or semi-civilized negroes have no voice in political matters in British territory, and no negroes had a vote in the Boer country. I was not able to ascertain definitely very much concerning the aboriginal religion. They believed to an extremely large extent in spirits, fetishes, and the supernatural powers of "witch doctors," and were consequently very superstitious. Missions have been established for such a length of time, that the pure, untarnished, native religion no longer exists in the territories alluded to, except in rare cases.

Referring to the effect of missions on the native population in general, it is a noteworthy fact that while the moral Zulu women, especially the younger ones, stalk about the precincts of their native kraals in Mother Eve's costume, they have no sense or idea of shame, and after a sojourn at a mission become aware of that fact, and also, it is said, become cognizant of the possibilities of immorality. They seldom, if ever, return to their tribe, preferring to live where they can obtain employment. If they return they rarely go back to their primitive dress, using the costumes of their white sisters.

Zulus are spoken of as the "gentlemen of South Africa." Kaffirs and Zulus always make up a name for a white man from some personal characteristic or attribute, and use these names amongst themselves when speaking about or referring to the man in question,

LOCALITIES OF TRIBES.

Zulus, or, more correctly, Amazulus, occupy the northern and western portion of Natal, touching the Drakensberg range of mountains, which forms the boundary between Natal and the Transvaal. Their influence formerly extended many miles in every direction, even up to the northern part of the Transvaal, many miles distant, especially so in the Crocodile valley, in the Lydenberg Mountains, where the remains of many large kraals, said to have been demolished in Chaka's time, can be found almost on every strategic point. These former domiciles belonged to the now nearly extinct Malpoks, a physically smaller race of people, said to be very treacherous and revengeful. These people are allied to the Sekekunis, who take their name from a chief, and who live in the vicinity of the Limpopo River. The Malpoks extended north as far as the Sabi River, which is south of the Limpopo, flowing east. On the east side of the Transvaal is Swaziland, occupied, as the name infers, by the Swazis, who are an offshoot of the Zulus, resembling them in many ways, both in speech and customs, with but slight modifications. This tribe was founded by a powerful chief who refused to obey, or, failing to carry out some of Chaka's orders, fled north with many of his followers, and set up a kingdom of his own by conquering and absorbing the weaker tribes that occupied this territory. He gradually became very powerful, and this nation to-day is one of the very few that remain intact. The Swazis are slightly physically smaller than the Zulus, owing to the absorption of people of less stature.

The Shangaans, who are north of the Swazis (in Portuguese territory) are slavish, treacherous and licentious, and have the name of profiting out of their women's virtue.

Swazis and Zulus are of the same Bantu stock, which embraces the Matabeles, Mashonas and other tribes in Rhodesia.

South and east of Zululand, at some distance away, in a very mountainous district, to the east of the Orange Free State, now the Orange River Colony, and directly east of the Orange River, is Basutoland, where live the Basutos and Sosutos, possessing all the characters of mountaineers, brave, free and independent. This country is a protectorate of Great Britain.

East and south of Basutoland, reaching north up to Natal and east to the sea, is the territory formerly occupied by the Kaffirs (Caffres), formerly called Caffraria, who were little, if any, inferior to the Zulus, but have long been in subjection to the British.

The major portion of the Orange Free State was occupied by the Baralongs, a physically inferior race, inhabiting the Karroo and Kalahari deserts. The most notable physical characteristic of this people being a protuberant stomach, produced by the vicissitudes of life in stony deserts.

West of these, again, live the Griquas, who are much lighter complexioned people. South to Cape Town the country was occu-

pied by dwarfish Hottentots, amongst whom in isolated cases dwelt the still more dwarfish and almost extinct Bushman (Boer, Boschjemen). I have seen only one hybrid specimen of this people, and he was a small, wizened-up piece of humanity, who might be well called a man-monkey.

KRAALS.

As one might suppose, all these tribes are virtually the same people, existing under similar conditions, with the same kind of food, and climate. Thus, their modes of life, their tribal government, their social and sacred usages, their manners of war, hunting and cultivation of the ground, together with their implements, ornaments, and weapons, vary but little. Starting with their kraals, we find that the beehive shape is maintained throughout the country, only changing when in long and close contact with civilized communities, when it is often exchanged for the square or oblong house, containing one or more compartments, and still having the small wattled pens attached, as is common with the remoter kraals. These beehive huts consist of a circular wall of about four feet in height, and up to twenty feet in diameter, covered with a conical roof of thatch of reeds or bamboos. The material of the walls may be stone or sun-dried clay, and each hut has a small enclosure, court yard, or pen, attached to it, with stone or mud walls of a height up to six feet. In places where bamboos can be obtained they are used for walls of enclosures, sun shelters, watch towers in their mealie patches, and even for the walls of huts. A group of huts together will each have its enclosure, and these are in such a position as to be on the farther side of the huts from centre of kraal their walls forming a barrier or protection. These enclosed court-yards are paved with clay pounded hard, and the stones of hut walls and enclosure walls are set in clay for mortar, while clay walls for huts and other purposes are not rare. In every large kraal or group of huts, there is one hut set aside for a communal storehouse, in charge of a person where supplies of grain, food, weapons, and the property of absent people are kept. Huts have small wooden doors fastened with thongs and hinges of raw hide. They have no windows. The floor is of pounded clay, tempered in some cases with bullock's blood. The occupants as a rule keep these huts very clean, and they are swept out regularly. The fire is built in the centre in inclement weather, the smoke escaping through the roof, the fire-place being simply several large stones rolled together. There are never any shelves or other conveniences in these huts, beds being rolled up and placed at the foot of the wall, household utensils ditto, smaller articles being kept on the top of the wall, where the roof projects, or they are suspended from the framework of the roof. The bamboo sun-shelters above referred to may be either an extension of the roof around the hut like a verandah, or a separate structure like a shed, supported on posts. These

shelters are more common in the Northern Transvaal than elsewhere.

The square or oblong huts occurring in the most civilized communities are constructed of sun-dried adobe clay, or of stone, with a thatch roof. Those that are communal, or containing several apartments have a door to each division and small window places, floors being of the usual pounded clay description.

The extensive ruins in the Lydenburg district before referred to, and which were generally situated on a rise or a hill, seemed to have possessed a system of terraces. They abound in mealing stones and in coarse pottery fragments not unlike pottery from Ontario village sites, in material, but without any incised ornamentation. In some cases descendants of the old people live among their ruins or in vicinity of them. I am not aware of any systematic excavations having been carried on in these places, but was informed that several attempts had been made and abandoned because the material recovered consisted mainly of mealing stones.

The word "kraal" is applied indiscriminately to single huts, groups of huts, and enclosures for live stock.

The cultivated ground is immediately in the vicinity of kraals, and the cultivation is carried on by means of large heavy mattock-shaped iron hoes, wielded by the women. Mealies, Kaffir corn, pumpkins, and tobacco being the principal crops raised. The watch-towers built for overlooking the fields are constructed of bamboo, if obtainable, if not, of any kind of small trees. They are simply small shelter huts raised on four posts, in which persons are stationed at night to watch the crops and give alarm on the approach of destructive animals.

Pigs, dogs, and fowls swarm around the kraals, little nests of stone and clay being constructed for the use of poultry. These nests may be several in a row, or single ones. The stone slabs are set up in shape of a box, leaving the front open; then the bottom is raised with clay, to form the nest, about half a foot to one foot in height. The little enclosures or courtyards around the huts are constantly swept out and kept clean.

IMPLEMENTS, ORNAMENTS, WEAPONS, ETC.

The ordinary working tools of the Zulus and Kaffirs consist of heavy "bush knives," of every description from "machetes" to a "bill hook," and heavy hoes and sickles, these of course are obtained from traders, and are the only implements noticed for agricultural purposes, spades or axes not being observed in use.

The weapon of the South African native is par excellence the assagai, which has two distinct uses, stabbing and throwing. The stabbing assagai has a shorter handle than the throwing assagai, and generally a longer blade. The blades have variation of form, such as are preferred tribally or individually, the Zulu preferring a large wide blade, leaf-shaped. Some of the other tribes use a long narrow blade, and, again, others a small leaf-

shaped one. Assagai blades can now be obtained from traders but formerly they used to make their own from native smelted ore, but when iron could be obtained from other sources it was quickly utilized for the same purpose. A lot of native-made assagais on examination look as if they were made of old bolts. The shafts are made from iron-wood (umsin beech), a very hard, lark, heavy durable wood. Shafts are about as thick as an ordinary finger, and have very often a small knob at the butt end. Where the shank of the blade enters the shaft it is sewed with woven wire or plaited strips of bamboo done in a pattern to strengthen and prevent splitting. When the shaft is very slender it is strengthened by selvages of wire woven into patterns, some times sections of the skin of some animal's tail, taken off without splitting, is drawn on the shaft, and shrinking in drying answers the same purpose as the wire. The skins of tails are very often used by just drawing over the butt of shaft, thus having a bunch of wavy hair for ornament. In throwing the assagai a trembling or quivering motion is given to it. One kind of blade is of zig-zag cross section, something like the letter Z, with long terminals, presumably to give it a rotatory motion. This blade is four by one and a half inches in size. Some stabbing blades are twelve or thirteen inches long and from one to one and a half wide. Shafts of throwing assagais are about four feet and over long, and stabbing assagai shafts are about two and a half or three feet long. The next offensive weapon to the assagai is the knob-kerrie. This is made of iron-wood, and is, as the name implies, a large round knob on a slender shaft; as a rule the diameter of knob is three or four inches, and the length of shaft about two feet. Those most prized are kept for a long time, and are much polished and worn. If they are made from the heart of the iron-wood, which is a very rich brown or black in color, showing a white "moon" on the side of the knob, which is due to the presence of the white sap-wood, they are much more highly prized. The uses of the knob-kerrie are either for striking or throwing.

Battle-axes are third in order as regards numbers and use. These are of a peculiar shape, generally a semi-circular or half moon blade, with a tang projecting from the back which fits into a short handle, and being clinched on the opposite side. The blades are about six inches long by three deep, and tangs about three inches long. The handles are about two feet three inches to two feet six inches long, and have a slight backward curve at the blade end. They also are made from ironwood. The blade is generally at less than right angles to the proximal end, so as to give force to a "drawing" blow. See fig. 7, plate 1. Some blades are triangular shaped. Blades project an inch or so from handle and resemble a saddlers' knife. Traders now supply battle axes to the natives.

Shields are oval shaped, and range in size from the small toy shields of the boys, a foot or so in length, to the huge war

shields of four or five feet long. They are made of dried ox-hides with the hair outside. There are two medium sets of parallel cross incisions the length of the shield, through these, when green, are pulled two strips of another hide, leaving two large loops on the inside about the centre as a means to support the shield. These shields are very light, and when not in use or to be stored away, can be dampened and rolled up in a small roll, and when to be used again can be re-wetted, unrolled, and dried, when they regain their former shape.

Walking Sticks.—Every male native when he travels or walks about carries either one or two sticks that serve as walking sticks. Sometimes these are elaborately carved. One in my possession has five baboon faces in relief underneath the circular flat top, and on the flat surface a rude incised representation of the sun. Though this was obtained from natives in the Northern Transvaal, it is supposed to have travelled thence from the Mozambique coast, and was of great curiosity and desire amongst the Cape Colony natives who saw it. The head-wives—or *umfazis*—have a short stick or cudgel to keep the rest of the family in order. These are made of the ground olive, and are called “*umfazi sticks*,” and seem to be used as general correctors or castigators.

Karosses are rugs made of tanned skins of wild and domestic animals, and are used for sleeping in, and are worn in the manner of a blanket in cold, wet weather. They are square in shape, and about four feet wide. An occasional one deviates from the usual shapes, one in my possession being semi-circular and composed of portions of skins of giraffe, leopard, and another animal.

Bamboo bed-mats are made of lengths of bamboo about three and a half feet long and one inch or so in diameter. These lengths are fastened together in a single layer by strings running over and under, at the ends and in the centre in several places. They are about six feet long, and in daytime are rolled up and placed out of the way. Rush or reed bed-mats are also made in a similar way, and are used in a like manner. I have seen women making these mats. They use no frames. Bamboos are also used for fences around kraals and for small enclosures, being made by sticking the butts into the ground close together and having several courses of transverse pieces for supports. These fences are never more than a few yards in length, no fences being needed for their “mealie patch,” as their domestic animals are always herded; this is a resultant from the lack of timber. Large rush baskets are made circular in shape, having a somewhat contracted mouth, and are sometimes, dyed, or stained in different patterns, their use being principally for the holding of grain and other commodities in the storage huts.

Clay pots are also made and are usually very large and of a red, black, or brownish yellow color. They are baked very hard, have smooth surfaces, but are not glazed, and very often have colored simple designs. I could not discover what materials were

used in coloring. The pots are simply used as receptacles for water in the hut enclosures, or for holding food in the storehouses. I do not know of their being used for cooking at the present day, being superseded by the iron pot of commerce. These large pots are globular in shape, with a smaller, contracted circular neck several inches in height. Calabashes and gourds of various shapes are used as domestic utensils. Wooden spoons and ladles are of frequent occurrence, also food trays and dishes of same material. The absence of stone tools was noticed, and especially the non-occurrence of flint or kindred material. Though there are some palæoliths from South Africa in Cape Town Museum, only two specimens of artificially perforated stones (native work) were picked up by the writer on an ancient site at Twyfellaar, Carolina district, Transvaal. These are two flat slate pebbles less than the palm of the hand in size; perforations similar to perforations in this country.

Wooden pillows are used in sleeping. They fit into the neck, and may be in style from ordinary blocks of wood to highly carved little stools. The ornamental form most in vogue is that of some elongated conventionalized animal shape. This sort, about eighteen inches long and up to about six inches high, consists of a bar with four rude legs, and occasionally a tail at one or both ends. Those carved similarly to a camp stool are much shorter, generally less than a foot in length.

Mealng stones and mortars. These are of every size from the small cup mortars for grinding snuff to the large basined and flat metates for grinding grain. There is an abundance of these in every kraal, and even on farms remote from settled communities. The upper stones or pestles are of ovoid and other rounded shapes and resemble very much that class of stones found so frequently on aboriginal sites in this country; so much so, that a series from each country would be indistinguishable except by their material.

Reims are long strips of sun-dried bullock hide, used for a variety of purposes, such as binding, tying, mending, similar to the shaganappi of the Canadian North-West Indians. "Reims" is a Boer word.

War-horns are made from extremely large bullock's horns, are scraped and polished, having a hole bored on the inside curve about eight or nine inches from the tip, with a diameter of about three-quarters of an inch. Some of these horns are about three feet in length, measured along the curve, and have a diameter at large end of as high as eight or nine inches. The sound produced is a deep boom.

Tom-toms and their uses are generally well enough known nowadays not to be described minutely here. One was seen which was covered with rock python's skin. It was about one foot in diameter and four inches deep, and was particularly noticeable for the peculiarity of the tightening process. This consisted of a series of running stitch loops in the edge of the skin, which was large enough

to lap underneath the circular wooden frame of the instrument, then another series of loops with a selvage string was interlaced outside these running loops. By pulling the selvage string the required degree of tautness was obtained. Locality, Pilgrim's Rest, North Transvaal. The only other musical instrument noted consisted of a bow about three feet long, with several strings. At the back of the bow is fastened a large calabash or several smaller ones. Sound is produced by twanging the strings, which give forth a sort of thrum.

As the Zulus and Kaffirs are much addicted to the use of snuff they carry the requirements of this practice constantly with them, the snuff-box being a tubular affair of dried skin covered with bead-work. This is worn on a bead-work collar, or is a portion of the collar. The size runs up to six inches in length by one inch in diameter. The taking of snuff is done by the means of a small slender horn spoon, which is carried stuck in a hole through the lobe of the ear. These spoons are very finely made, the handle being long and slender and pointed, so as to prove useful as a head-scratcher, the bowl shallow and about the size of a finger nail; sometimes a pattern of incised lines occurs on the handle. Porcupine quills, also used as head-scratchers, are likewise carried in the ears.

Necklaces other than bead-work collars, are made of a variety of objects, lions' and leopards' claws being most highly esteemed, because rare. Then they have necklaces of traders' beads interspersed, with seeds of trees shaped like the kernels of almonds and similar in color, also of short brown cylindrical beads of sacred wood alternated with teeth or shells ground into discs. The wooden beads average three-eighths of an inch in diameter, and up to three-quarters of an inch in length; discs three-sixteenths to half an inch in diameter. One necklace obtained from the wearer, a middle aged negro, was made of small angular black stones, having eleven facets. The stones resemble slate very much, and I am informed nearly always occur of the same size or shape. When they vary they are ground down to resemble the rest. There are 162 stones in this necklace, comprising a length of three feet four and a half inches, and strung on horsehair. It is of native make, perforations neatly made, and just large enough to admit several horsehairs.

Bridal necklaces of large globular beads consist of strings from ten to twenty-four feet in length. These beads are of various colors, and are interspersed amongst the ordinary smaller beads, both sorts being procured from traders, and are not of native make, material being glass or porcelain. They are arranged with a regard to the order of the recurrent colors, and the alternation of the larger and smaller beads, fixed rotations being preserved, two or three colors only being used for each necklace. The bead-work collars and belts used on festive occasions by both sexes are simply ropes of some material sewed around with strings of beads of vari-

ous colors, so as to present an appearance of solid colored sections occurring with regularity. The collars have a little square flat pendent tab of bead-work in front. The bead-work belts worn by the Zulu women have a width of several inches, and are loose, fitting over the hips, with a square bead-work piece about the size of an envelope, pendent in front. A belt and a necklace are usually the entire costume at a dance. Ordinary and children's bead necklaces among the Zulus are of several parallel rows of strings cross-fastened, and sometimes tabbed. The beads are strung on horse hair, strands of native twine, and "reims." The mode of fastening the above articles is by a loop and a brass button.

Feathers and tufts of hair form special adjuncts to ornamentation of persons, and the display of savage finery in war dances, etc., feathers being principally those of the ostrich and the long curly tail of a thrush (Kaffir, Sackaboula), which grows once every three years, and is much prized. The tufts of variously and naturally colored hair, and the tails of animals are extensively worn by the Zulus. These are fastened below the knees, above the elbows, and around the ankles. They do not seem to possess any method of dyeing white feathers, hair or quills with various brilliant colors as the Red Indian did. Phallocrypts, or private purses, are worn by all males from ten or twelve years old up, and are generally made from a nut resembling the vegetable ivory nut, and are now obtainable from traders. They are commonly called "doppies."

Charms of various sorts are worn extensively, and often consist of tips of horn polished and perforated, and suspended from a necklace. Buck or goat horns are filled with grease of various sorts, sometimes with needles buried in, and are placed in the thatch of the kraal roof for fetish reasons. I could not ascertain if they were thus placed to bring harm to the occupant, or believed to be a protective agent.

GRAVES.

The only place where I noticed native graves was in the vicinity of a large kraal on a slope of a rise between Ventersfontein and Reddersburg, Orange River Colony. There were about seventeen or eighteen, and each grave had a solid circular covering of flat stones up to a diameter of 10 feet. Venereal diseases are very prevalent in the vicinity of mining districts; in some localities as high as 90 per cent. are affected.

MODES OF WEARING HAIR.

The Zulu married women wear their hair in the shape of a truncated cone projecting from the back part of the head, and colored a deep brick red, which resembles very much a Turkish fez. Foreign substances are added to give this mass a solid appearance.

The head men of Zulu kraals are known as "ringed men," from the custom of wearing their hair in a ring around the crown of

the head, the rest of the head being shaved clean. Foreign substances are added to and worked in with this ring till it is solid, hard, black, and as polished as ebony. Younger men, or men not being the heads of families or not warriors, are not permitted to be "ringed." This custom is prevalent in other tribes. In the Lydenberg district of the Transvaal young native women grease their hair and then powder it with a yellow clay. This custom is not observed elsewhere.

In the eastern part of the O. R. C. young boys were noticed who had one-half of their heads shaved clean, the dividing line being from the centre of the forehead to the nape, and it seemed that as after a while the other part would then be shaved, as in these cases the hair that was left was very short. As this was near the Basutoland border the natives were Basutos or of Basuto stock. In the same locality male adults who had beards—which were very sparse—had these curled into several little corkscrew-curls of a few inches in length. As many as six were noticed in one instance.

ODD CUSTOMS, ETC.

In the Clocolan district, Orange River Colony, several native children of tender years were found up amongst the rocks, high above the river, making toy animals out of clay. These were modelled very well, considering, and all the main features were well worked. The sun hardened them rapidly, so that they became quite durable, and they represented domestic animals, cattle principally. "Witch doctors" play an important part yet in the lives of these peoples, but all bloodthirsty ceremonies, such as "smelling out witches," and the like, are put down by the respective territorial Governments. The present day "witch doctor" is generally an old man, having a hut set apart for his own use in the kraal where he lives. I had not much chance to investigate along this line, but found that they occupy pretty much the same sphere in tribal negro life that the Indian medicine man does in America.

Dakka—a native wild hemp, is used for smoking. This produces a species of intoxication, followed by a stupor lasting for several hours. The dakka is tied in bunches and hung up to dry. It needs no other preparation than crumbling and putting into the pipe. Male adults, young and old, sit around a fire, the pipe is filled and passed around, several draws are taken by each, and the pipe passed on. The immediate effect is a great deal of suffocating coughing and excessive expectoration. Then follows semi-intoxication, in which the partakers relate boastingly of various deeds performed. As the pipe circulates more talk, cough, spit, and jabber follow, till all are wrapt in a stupid sleep. Personal encounters sometimes take place on such occasions, when sticks are pretty freely used, but serious damage is seldom done.

The pipes are made from cow's horns. The large end is plugged up, and a "mouth hole" cut in about one-third way from

the tip. Then another hole is bored near the larger end, and a six or eight inch length of bamboo inserted. The bowl fits on top of the bamboo, and is made of soapstone if obtainable. The shape is similar to an hour-glass, one end for the dakka and the other fitting over the bamboo. The capacity of the bowl is that of an ordinary pipe. Stone inkbottles of a small size have been known to have been utilized for bowls for these pipes by fitting the neck over the bamboo and breaking the bottom of the bottle off. The use of dakka is general throughout all the tribes, and its effect in the long run is the same as that of opium. Tobacco is smoked separately, and is not mixed with dakka, the latter being preferred to tobacco either of native culture, or of white man's growth. Sometimes when not possessing a pipe and wanting a smoke in a hurry a Kaffir will poke two little converging holes in clayey ground, and filling one of them will light it, drawing the smoke through the other.

Snuff is ground in little cup mortars, from native tobacco, and is invariably used.

The only gambling noticed was done with cards. A game similar to "banker" was played, ordinary lucifer matches being used for counters, or to represent values.

Salutes.—On meeting prominent white people the salute was the two first fingers of the right hand held extended straight up above the shoulder, in conjunction with the audibly spoken word "Inkoos" (chief). The royal salute given to the Zulu royal family was the same gesture with the words "Bay e le." If the hand is holding a stick, assagai, or knob kerrie these are held up and not released.

The egret is a sacred bird amongst the Zulus, and is not harmed. It is pure white in color. Fish are not eaten by Zulus, who say that fish and snakes are closely related. They will not even eat the canned fish of commerce. Liguanas, large lizards of several feet in length, are eaten by some of the tribes. Locusts are gathered up in large quantities and dried, stored away in baskets, and pots for the general food supply. I do not know in what manner they are prepared for use, whether they are used by themselves, or are pulverized and used with "mealie pap," but I frequently saw them stored up in the kraals.

Mealie pap corresponds to the American cornmeal "mush."

Biltong or dried meat is beef principally, cut into long strips, slightly salted if salt is obtainable, and sun-dried. This being done around the kraals and under the bamboo sheds. The native domestic animals are ponies, cattle, sheep, goats, pigs, dogs, and poultry, but it is hard to determine the original stock, owing to the frequent use of imported animals from Europe. The Basutos claim that they have had their hardy little ponies from time immemorial. The cattle seem to be of two distinct races, the smaller having a hump on the shoulders, like the Brahmin cattle of India, and originally coming from Madagascar, and are called Malagasay

cattle, the other kind being a variously colored, small, roughly-shaped beast with large horns. The Zulus had a larger run of cattle, owing to being in closer proximity to white settlements. The sheep are drop-eared, goat-like animals, with scanty wool, colored in patches, black or brown on white ground. Goats are the ordinary African goat. The dogs are so crossed with imported greyhounds, for coursing purposes, that the original stock is indeterminate. This cross has taken place of late years, since the natives are disarmed and not allowed even assagais. They improved their dogs to course small "buck" and rabbits. Beer strainers are a woven grass bag of about four inches in diameter and one and one-half feet long. One in my possession is made of twisted grass cord in the following manner: A two-stranded, twisted cord has been spirally wound round a core, and then a single twisted cord has been taken, and, starting from the top, has been passed under and over till it reaches the bottom, then back again to top in same manner, only passing on the opposite sides of spirals, when it reaches the top it is **knotted with its other end** and cut off. This is repeated till the bag is made. The top spiral is loose enough for about three inches of the cord to be drawn out to a loop for suspension purposes. The top of the bag is open, and the bottom is closed by the spirals being abruptly lessened in diameter. Fly whisks are made of a bunch or tuft of long hairs from horses manes or tails inserted into a short handle.

The natives use ant hills for ovens. These ant hills have an exterior coating of hard worked up clay, are dome shaped, and as full of galleries and passages as a sponge. It is only necessary to cut a hole in for the reception of fuel (dried dung), another for a draught, and then put your cooking utensils on and proceed.

The most frequent variety of stone or rock occurring are sandstone and slate, and quartz and shale in the mining district. Limestone is absent except in vicinity of Pretoria. The country is treeless and waterless, except in mountainous and the coast districts, also along the large rivers. A very large area is desert.

Oranje Vrij Staat (Orange Free State) now Orange River Colony. The absence of bows and arrows is noticed through the country. These, if ever used to any extent, were superseded by firearms, and now that the natives are disarmed of the latter they have not resorted to the former. The bushmen dwarfs still use poisoned arrows.

G. E. LAIDLAW,

Ex-Lieut. Strathcona's Horse.

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Hon. Richard Harcourt, M.A., K.C., Minister of Education :

Sir,—In presenting you with the Archaeological Report for 1902, I have to state that the year has, on the whole, been a comparatively uneventful, though a prosperous one, as far as the Museum is concerned.

My appointment by you as Superintendent of the whole of the Provincial Museum demanded so much time in the office that it was impossible to spend any in the field, but as you recommended the employment of several gentlemen (most of whom have hitherto assisted us quite gratuitously) to examine and report on sections of the province with which they are thoroughly familiar, it is certain that you will find the results as herewith embodied, much more satisfactory than if the whole task had been attempted by myself, or by any one person in such a short time.

As the nature of our work becomes better and more widely known, gifts made to the museum increase in quantity, and improve in quality. This is no doubt attributable also to the fact that there is more reading done on ethnological topics as these are popularized in newspapers and magazines. Fewer people now look with contempt on collections of specimens illustrative of primitive life, or regard them as so much bric-a-brac, and not nearly so many persons profess to know exactly the uses or purposes of everything artificial in bone, clay and stone. Statements are made more cautiously, and questions are asked with more intelligence as time goes on.

As an evidence of the increased interest taken in matters ethnological, it may be stated that last winter the Curator was invited to address the Young People's Association of the Bond Street Congregational Church, the Woman's Missionary Society of the Metropolitan Methodist Church, and the Kindergarten teachers of this city. To the last named, four lectures were given on the origin of music, decoration, games, and superstitions.

The most important additions of specimens that have been made during the year (nearly two thousand in all) include two hundred from Dr. R. W. Large, British Columbia; a small, but valuable collection of eoliths and paleoliths from England and Ireland, presented by R. D. Darbishire, Esq., Manchester, England; a numerous supplementary accession to the Waugh collection by Mr. F. W. Waugh; upwards of seven hundred from Mr. W. J. Wintemberg, nearly a hundred and thirty from Mr. R. T. Anderson, and about one hundred of Eskimo origin from the Rev. I. O. Stringer, Missionary on Herschel Island, near the mouth of the Mackenzie River.

For want of case-room a considerable number of specimens are stowed away, and for the same reason much of the material now in cases is too crowded to be seen to advantage.

During the summer a good many public school classes, accompanied by their teachers, have spent part of some Saturdays in the museum. Visits of this kind are encouraged, but it is a question whether they should not rather form a part of the everyday teaching than be reserved to encroach on what has come to be regarded as a day of "no school."

Occasional use has been made of the ethnological material by artists, for composition in wall pictures, and for book illustrations. As additions are made to the collection, it will probably be still more utilized in this way, in connection with the growing demand for newspaper and book embellishment.

Having with your consent attended the New York meeting of the International Congress of Americanists, whose discussions related to the origin, distribution, history, physical characteristics, languages, inventions, customs and religions of the native races of America, and to the history of the early contact between America and the old world, I was thus afforded an opportunity to become personally acquainted with a large number of the principal European and American ethnologists, in company with whom, after the close of the week's session, I was privileged to visit all the most important museums in the United States, namely, the New York Museum of Natural History, the National and Smithsonian in Washington, that of the Pennsylvania University in Philadelphia, of the Carnegie Institute in Pittsburg, Eden Park Museum in Cincinnati, and the Field Columbian in Chicago. Besides these I had special opportunities to examine the collections in the Academy of Sciences, Buffalo, and in the Children's Museum, a branch of the Brooklyn Institute, New York. To see so many large cabinets of this kind, and to observe the methods employed in cataloguing, installing, arranging, labeling, and general management, enabled one to make comparisons not otherwise possible, and the result of these comparisons will, it is hoped, tend in time to the effecting of improvements in our own institution.

I have the honor to be,

Yours respectfully,

DAVID BOYLE.

ACCESSIONS TO THE MUSEUM.

23090, Granite Pestle, Dr. T. E. Craig, Manchester, Indiana. 23091, Photograph of a cliff dwelling, Colorado, Joseph Workman, Walsenburg, Col. 23092, Indian skeleton, from Taylor's Point, Sandwich, Ontario. Harold R. Hatcher, Comber. 23093, Cannon balls, Niagara-on-the-Lake. 23094, Birch-bark torch, used by the Mississauga Indians of Wikwemikong Reservation, Sandfield Township, Manitoulin Island, F. W. Waugh. 23095, Wooden pot-hook, used by the Mississaugas of Wikwemikong Reservation, Sandfield Township, Manitoulin Island, F. W. Waugh. 23096, Appears to be a carved nut, Lotteridge Farm, Hamilton Beach, procured from the son of the man who found it. See Report, 1899, pp. 29, 30, improperly numbered there 24471. 23097, Carved nut procured from Mrs. De Blaquiere, formerly of Woodstock, Ont. She thought the specimen was of Maltese design, it resembles in style 23096, 23098, Pebble used as a hammer, Braeside Farm, Richmond Hill, John N. Boyle. 23099, 23100, Small stone mortar and pestle found on coast of S. California by Master Andrew Boyle, from David Boyle. 23101, Stone hammer (Houstie), Calistoch, Bella Bella. 23102, Bear's tooth pendant, Charles Windsor. 23103, Small stone axe, Charles Windsor, Bella Bella. 23104, Spinning disc or whorl, Arthur Ebbstone, Bella Bella. 23105, Playing disc, Charles Windsor, Bella Bella. 23106, Stone hammer, R. W. Large, M.D., Goose Island. 23107, None. 23108, Hammer from bone of whale, for beating cedar for mats, Bella Bella, B.C. 23109, Chief's horn spoon, Herbert Hurnchil, Bella Bella. 23110, Chief's horn spoon, Bob Lawson, Bella Bella. 23111, Dance whistle, Daniel Houstie, Bella Bella. 23112, Mussel shell, used as a knife, Bella Bella. 23113, Indian Cedar box made by Capt. Carpenter, Bella Bella. 23114, Indian cedar box, made by Chief Robt. Bell, Bella Bella. 23115, Small key-ring, made by Bella Bella Indians. 23116, Silver brooch, made by Oliver, Albert Bay. 23117, Bracelet, made by Oliver, Albert Bay. 23118, Eagle brooch, made by Oliver, Albert Bay. 23119, Stone used for paint by Capt. Carpenter, Bella Bella. 23120, Abalone (haliotis) shell pendant, Bob Lawson, Bella Bella. 23121, Stone axe (Klah-qua-bah-la). 23122, Stone playing disc, Dr. Sam, Bella Bella. 23123, Stone playing disc, Alfred Wilson, Bella Bella. 23124, Cedar playing disc, J. Quanoote, Bella Bella. 23125, Key-ring, by Gen. Dick, Bella Bella. 23126, Stone axe (Klah-qua-bah-la), Rev. J. Edgar, China Hat. 23127, Hydabasket, Alfred Wilson, Bella Bella. 23128, Stone axe (Klah-qua-bah-la), Old Sandy, Bella Bella. 23129, Stone Hadibut Sinkers, old, Bella Bella. 23130, Stone paint-pot, Rev. J. Edgar, Bella Bella. 23131, Stone hammer (Houstie), Bella Bella. 23132, Stone hammer (Houstie), Johnny Reid, Bella Bella. 23133, Stone Hammer (Houstie), Fireman, Bella Bella. 23134, Stone fragment (Houstie), Bella Bella. 23135, Dance mask, used by Interior or Stick Indians, made by Daniel Houstie, Bella Bella. 23136, Stick-Siwash (or Interior Indians) Mask, purchased from Solomon, Bella Bella. 23137, Stick-Siwash (Interior Indians) Mask, purchased from Solomon, Bella Bella. 23138, Dance whistle, Daniel Houstie, Bella Bella. 23139, Carved Eagle, Paul George, Kimsquik. 23140, Canoe

paddle, made by Gen. Dick, Bella Bella. 23141, Walking stick made by Dr. Sam, Bella Bella. 23142, O'wekeno walking stick, Timothy Hunt, Bella Bella. 23143, Carved walking stick made by Daniel Houstie, Bella Bella. 23144, War club, made by Chief Robt. Bell, Bella Bella. 23145, Old-time halibut hook and sinker made by Daniel Houstie, Bella Bella. Hooks are made from scapula of mountain sheep. 23146, Small totem pole, Fort Rupert. 23147, Food-box, representing beaver with stick in front paws, made by Capt. Carpenter, Bella Bella. 23148, Playing disc, Frank West, Bella Bella. 23149, Stone used by Indians in cooking seaweed. After oolichan oil is added heated stones are put in. Willie West, Bella Bella. 23150, Old-time Indian cradle, made by Enoch, Bella Bella. 23151, Carved stick used to keep in position the pad used to flatten infants' heads when in the cradle, made by Daniel Houstie, Bella Bella, B.C. 23152, Stick used to suspend cradle. 23153, Carved whaling-paddle, Daniel Houstie, Bella Bella. 23154, Carved wooden totem pole, Fort Rupert. 23155, Indian dance whistle (Chief Robt. Bell), Bella Bella. 23156, Woman's hat, made from cedar rootlets, painting representing an eagle, Fort Rupert. 23157, Carved walking stick, by Dr. Sam, Bella Bella. 23158, Cedar bark canoe baler, Fort Rupert. 23159, Whale bone mat beater used to pound the cedar bark. 23160, Club used to stun halibut before hauling the fish into the canoe, Bella Bella. 23161, Dance head-dress used by Fort Rupert Indians. 23162, Dance neck ornament, used by Fort Rupert Indians. 23163, Stone axe (Klah-qua-bah-la), Bella Bella, Mr. Harris. 23164, Stone used for painting, Capt. Carpenter, Bella Bella. 23165, Bear tooth, tobacco pipe, Bella Bella. 23166, Stone axe (Klah-qua-bah-la), Bella Bella. 23167, Stone axe (Klah-qua-bah-la), Bella Bella. 23168, Stone axe (Klah-qua-bah-la), Bella Bella. 23169, Stone axe (Klah-qua-bah-la), Bella Bella. 23170, Slipper case, representing frog made by Bella Bella women. 23171, Halibut sinker, Bella Bella. 23172, Mortar representing frog, Bella Bella. 23173, Silver brooch (Sock-eye salmon), Fraser River. 23174, Silver earrings, Fort Rupert. 23175, Silver earrings (child's), Fort Rupert. 23177, Chief's spoon (very old), Chief Noonequas, Bella Bella. 23177, Common wooden spoon, Bella Bella. 23178, Stone war club, Bella Bella. 23179, Stone hammer (Houstie), Bella Bella. 23180, Stone hammer (Houstie), Bella Bella. 23181, Stone hammer (Houstie), Goose Island. 23182, Stone hammer, fragment, Bella Bella. 23183, Stone hammer, fragment, Bella Bella. 23184, Stone hammer, fragment, Bella Bella. 23185, Stone hammer, fragment, Bella Bella. 23186, Stone axe (Klah-qua-bah-la), Bella Bella. 23187, Modern harpoon hook, Bella Bella. 23188, House post, Bella Bella. 23189, House post, Bella Bella. 23190, Roughly carved human figure, Gen. Dick, Bella Bella. 23191, Roughly carved human figure, Gen. Dick, Bella Bella. 23192, Roughly carved human figure, Gen. Dick, Bella Bella. 23193, Roughly carved human figure, Gen. Dick, Bella Bella.

23101 to 23193 from Dr. R. W. Large, Bella Bella, British Columbia.

23194, Clay pipe stem, found by Rev. E. A. W. Dove, Wm. Weir's farm, Harvey township, Peterboro' County, Ontario. 23195,

Small stone chisel, Rev. E. A. W. Dove, Harvey township, Peterboro' County, Ontario. 23196, Small stone bead (catlinite), one inch long, lot 5, con. 5, Brantford township. 23197, Thirty small sheet brass beads, native make, lot 5, con. 5, Brantford township. 23198, Soap-stone pipe, a curious combination of a short tube with a projection, which was perhaps used as a handle. 23199-23207, Stone axes and chisels (adzes), from 2 3-4 to 6 inches long, Oxford township. 23208, Small stone tool, 3 3-4 inches long; perhaps a degraded adze, now blunt at the cutting end, which is ground down to a smooth and slightly angular face 1-4 inch wide, as if it had been used for rubbing or polishing purposes, Oxford township. 23209, Bar-amulet, slightly elevated in the middle, with holes diagonally at each end, Oxford township. 23210, Imperfect banner-stone, one of the pointed ends broken, the other rounded down, hole $\frac{1}{2}$ in., Oxford township. 23211-23212, Unfinished tablets of slate, about 4 inches long, 1 5-8 inches wide, little more than 1-8 inch thick, no holes, from Oxford township. 23213, Small tablet-like (Huronian) slate object, 3 1-2 inches long, sharpened at one end, one hole near opposite end. Oxford township. 23214, Opalescent quartzite arrowhead, Oxford township. 23215, Argillite spear or arrowhead, roughly made, Oxford township. 23216-17, Two well-formed arrowheads of chert, with serrated edges, Oxford township. 23218-21, Leaf-formed flint and chert tools from 2 1-4 to 4 inches long and from 1 inch to 2 inches wide, Oxford township. 23222-23259, Arrow and spear heads, 1 1-2 by 1, to 3 1-2 by 2 inches, Oxford township. 23260, Small chert scraper, Oxford township.

From 23196 to 23260, gift of F. W. Waugh, Toronto.

23261, Bone arrowhead, beautifully formed, W. C. Perry, Winnipeg. 23262, Large, ovoid white stone bead, of very hard material, W. C. Perry, Winnipeg. 23263-5, Three well-made iron arrowheads, W. C. Perry, Winnipeg. 23266-90, Chipped arrow-tips of quartz, quartzite, agate, jasper, chalcedony and obsidian, W. C. Perry, Winnipeg. 23291, Photograph, woman of Accra (Gold Coast), Africa, grinding meal to make "kinkey" (native food), Dr. Jas. F. Boyle. 23292, Photograph Fetish woman of Accra (Gold Coast, W. Africa), getting ready to dance. Dr. James F. Boyle. 23293, Photograph, Foulah woman, Liberia (West Africa), Dr. James F. Boyle. 23294, Small stone adze, lot 11, con. 14, East Williams township, Middlesex County, Andrew J. Ross. 23295-23318, Eoliths from various places, Kent County, England, R. D. Darbshire, Manchester. 23319-23328, also 23364, Paleoliths (river gravel), Swanscombe, near Greenwich; R. D. Darbshire, Manchester, England. 23329-23339, Flakes and tools, Ancient beach, Kilroot, County Antrim, Ireland, R. D. Darbshire, Manchester, England. 23340-23344, Flakes and chips, Coleraine, River Bann, Ireland, R. D. Darbshire, Manchester, England. 23345-23350, Flakes and tools, River Bann, Londonderry County, Ireland, R. D. Darbshire, Manchester, England. 23351-23358, Flakes and scrapers, White Park Bay, Antrim, Ireland (Seaside fields) R. D. Darbshire, Manchester, England. 23359-23363, Scrapers, Antrim Co. 23364, Celts (palaeoliths), Antrim Co., Ireland, from R. D. Darbshire, Manchester, England. 23365-23376, Chert axes (palaeoliths), (valley gravel), R.

D. Darbshire, Manchester, England. 23377, Small and imperfect brass pot, found in an Indian grave, when the foundation of a house was being dug at Taylor's Point, near Sandwich, in the spring of 1901. Paul Taylor, Windsor. 23378, Small horn spoon, Taylor's Point, Sandwich, Ont., Paul Taylor, Windsor. 23379, Head of bone comb, carved snake; Taylor's Point, Sandwich, Paul Taylor, Windsor, Ont. 23380-23390, Part of necklace, Taylor's Point, Sandwich, Ont., Paul Taylor, Windsor, 1902. 23391-94, Part of neck lace, Taylor's Point, Sandwich, from Paul Taylor, Windsor, Ont. 23395, Large bone bead, rude pattern scratched on one side, Seeley farm, Brantford township. F. W. Waugh. 23396-400, Five small arrow points, Clay township, Scioto County, N. A. Chapman, S. Ohio. 23401, Small white chert drill, Clay township, Scioto County, N. A. Chapman, S. Ohio. 23402, Spear head from Purdy farm, near junction of McKay's and Purdy's Creek, East Nissouri, Co. Oxford, from L. D. Brown, Lakeside. 23403, Unfinished banner-stone, James Thompson's farm, West Nissouri, Middlesex County, L. D. Brown, Lakeside. 23404, Stone tube from McCallum's farm, south boundary, Blanshard, County of Perth, L. D. Brown, Lakeside. 23405, Flint knife, found by George Carey at St. Mary's, County of Perth, L. D. Brown, Lakeside. 23406, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23407, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23408, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23409, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23410-23411, Bone or horn pins, Seeley farm, Brantford township. 23412, Wild turkey bill, bored, Seeley farm, Brantford township. 23413, Bone awl or perforator, Seeley farm, Brantford township. 23414, Unfinished and broken banner stone, Dick farm, Brantford township. 23415, Pottery, shell-tempered, Seeley farm, Brantford township. 23416, Bone in preparation for needle, Seeley farm, Brantford township. 23417, Knife or arrowhead, Seeley farm, Brantford township. 23418, Plain clay pipe, Seeley farm, Brantford township. 23419, Small saw, Seeley farm, Brantford township. 23420, Phalange of red deer, Seeley farm, Brantford township. 23421, Horn pin, Seeley farm, Brantford township. 23422, Small rubbing stone for bone or horn pins, Seeley farm, Brantford township. 23423, Two upper molars, red deer. Andrew Westbrook's farm, Brantford township. 23424, Right lower jaw of beaver, Seeley farm, Brantford township. 23425, Left upper jaw of beaver, Seeley farm, Brantford township. 23426, Humerus of fox or small wolf, Seeley farm, Brantford township. 23427-9, Metacarpal and metatarsal bones of black bear, Seeley farm, Brantford township. 23430, Molar of black bear, Seeley farm, Brantford. 23431-23433, Phalanges of red deer, Seeley farm, Brantford township. 23434, Claw of large hawk, Seeley farm, Brantford township. 23435, Wolf-canis occidentalis, Seeley farm, Brantford township. 23436, Lower jaw of red deer, Seeley farm. 23437, Part of conch, worked—near Walker's farm, Brantford township. 23438-23515, Beads from *Busyon perversum*,

Walker's farm, Brantford township. 23516-23586, Beads-columella of small conchs, Walker's farm, Brantford township. 23587, Hematite—rubbed pigment, Walker's farm, Brantford township. 23588, Necklace, with human hair, bought at Calgary, Blood Indian, worn at time of purchase, Thomas Green, Toronto. 23589, Anterior rib (*Cariacus virginianus*), Seeley farm, Brantford township.

From 23410 to 23589, gift of F. W. Waugh, Toronto.

23590, Beaded watch-pocket, Kiowa Indians, Saddle Mountain, Oklahoma, U.S.A., Miss Crawford. 23591, Rattle sticks, Tuscarora dances, Wm. Bill, Ohsewekin, Ontario. 23592, One plate of baleen (whale bone), 4 feet long. 23593, One blubber-bucket of driftwood, native manufacture, Eskimo. 23594-23595, Two tobacco pipes, Eskimo. 23596, One loche fish-hook (Loucheux Indians). 23597-23598, Two marmot snares of whalebone (Eskimo). 23599, One slate (woman's), knife, Eskimo. 23600, One bone and steel spear (toggle) head, Eskimo. 23601, One old curved steel knife, native make, Eskimo. 23602, One specimen of babiche, Eskimo. 23603, One ornamented (woman's) bag, made of skin from water fowl's feet, Eskimo. 23604, One small baby deerskin bag, Eskimo. 23605, One small dried Arctic rat bag. 23606-23610, Five miniature brass and copper imitations of spoons and women's knives, used as personal decorations, Eskimo. 23611-23613, Three small bone ornaments, representing fish neatly carved, Eskimo. 23614, One piece of jadeite, used to sharpened knives, Eskimo. 23615, One rabbit snare of whalebone, Eskimo. 23616, One Eskimo medicine man's box with complete collection of his charms for the cure of disease (the box in question and its contents are of difficult acquisition, and are accordingly very interesting and valuable. 23617, Skin of pelican (*Pelecanus erythrorhyncus*),* shot by the Eskimo near the mouth of the Mackenzie River. This marks the first record of the bird being found so far to the north. (Transferred to biological department). 23618, One ice-scraper used as a decoy to catch seals, Eskimo. 23619-20, Two small human figures, man and woman, dressed to show costume of the Eskimo. The man holds a drum in his hand. By means of strings the head and arms may be moved. The woman's figure shows how the baby is carried below the hood. The dress of both is complete. 23621, One pair of sealskin water-boots highly ornamented. 23622-23623, Two spears, illustrating the combination of shaft and toggle-heads. 23624, One ivory box with lid, used by the Eskimo women to hold "jewelry." 23625, One model of an Eskimo sleigh, 2 feet 3 inches long, shod with bone and in every particular exemplifying the sleigh in common use in that part (mouth of Mackenzie River) of the Arctic regions. 23626, Large Eskimo drum, very well made and showing much ingenuity. 23627, Bow in deerskin case, Eskimo. 23628-23633, Six arrows for the bow in deerskin case. 23634-41, Eight arrows for a larger bow, Eskimo. 23642-23647, Six dress ornaments representing small fish, carved from ivory, Eskimo. 23648, Small fish-hooks of bone and iron, Eskimo. 23649-23651,

* "They are rarely seen as far north as the Great Slave Lake." *Explorations in the Far North*, by Frank Russell, p. 256. 1898.

Three large fish-hooks of bone, ivory and iron, Eskimo. 23652, Large dipper, five inches wide with handle made from horn of mountain sheep. Loucheux Indians. 23653-23654, Two knives (girls'), bone and steel, Eskimo. 23655, Tobacco pipe, native make, Eskimo. 23656, Set of dog harness for sleigh, Eskimo. 23657, Large bag of skin, neatly made, used as a general receptacle in the snow houses, Eskimo. 23658, Pair of deerskin gloves, Eskimo. 23659, Pair of deerskin boots, legs ornamented, sealskin soles, Eskimo. 23660, Pair water boots, plain, Eskimo. 23661, Beaded tobacco bag, Eskimo. 23662, Tobacco bag of deer and squirrel skin, Eskimo. 23663, Bag made from skins of birds' feet, Eskimo. 23664, Bag made from neck of large bird, Eskimo. 23665, Netting needle and measure for the net meshes, ivory, Eskimo. 23666, Woman's labret. This is a large specimen, and apparently very old, the custom of wearing labrets (lip ornaments), is now almost out of use. 23667, Deer snare of whalebone, Eskimo. 23668, Small ermine-skin bag, or pocket, Eskimo. 23669, Bag, beaded to represent flowers, Loucheux Indians. 23670, Small dressed deerskin, Eskimo. 23671, Pair of moccasins, ornamented with porcupine quill work, Loucheux Indians. 23672, Head-dress of noted Eskimo chief (Anahlook). 23673, Large ivory fork or rowlock to attach to the stern of canoe for the steering oar. 23674, Beaded fire bag, plain, straight line pattern, Eskimo. 23675, Medicine man's mask, an exceedingly rare kind of specimen, probably the only one in a Canadian collection, Eskimo. 23676, Pair of moccasins, ornamented with porcupine quill work, Eskimo. 23677, Bone knife used to cut snow into blocks for house-building, Eskimo.

From 23592 to 23677 were procured from Rev. I. O. Stringer, of Herschel Island, Mackenzie River.

23678, Spade-shaped implement (cast), probably of Saussurite, from the Shield's mound, near the mouth of the St. John River, Duval County, Florida, C. B. Moore. 23679, Spade-shaped implement (cast), of fine grained igneous rock (diorite), from mounds at Mt. Royal, Putnam County, Florida, Clarence B. Moore, Philadelphia, Pa. 23680, Chisel (cast), probably of greenstone, from mound at Mt. Royal, Putnam County, Florida. Clarence B. Moore. 23681, Implement (cast), probably of claystone, ploughed up at Goodland Point Isl. of Marco, Lee County, Florida, Clarence B. Moore, Philadelphia, Pa. 23682, Ceremonial axe (cast), of volcanic stone from the "Thirty Acre Field" Mound, Montgomery County, Alabama, Clarence B. Moore, Philadelphia, Pa. 23683, Skull from ossuary on the Walker farm, lot 10, con. 2, Township of Onondaga, Brant County, F. W. Waugh, Toronto. 23684, Rubbing stone from village-site on Mitchell place (old Secley farm), lot 9, 1st range, south of Hamilton road, dug from a cabin site marked by a bed of ashes 21x5, F. W. Waugh, Toronto. 23685, Drill, Mitchell place, lot 9, 1st range, south of Hamilton road, Brantford township. F. W. Waugh, Toronto. 23686, Saw or scraper, Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township. F. W. Waugh, Toronto. 23687, Arrowhead, roughly made, Mitchell place, Brantford township. 23688, Flint knife, field near Langford, Ontario. 23689,

Pipe bowl, from J. Walker's farm, lot 10, con. 2, township of Onondaga, Brant County. 23690, Pipe bowl, from bed of creek, Mitchell place, lot 9, 1st range south of Hamilton road. 23691, Stone axe (light-colored one), found in bank of stream near village site on the Mitchell place, lot 9, 1st range south of Hamilton road. 23692, Hammer stone made from boulder of Hudson River shale, found on small camp-site, discovered on farms of Thomas Laidlaw and Mr. Ira Vanderlip, back portion of lot 10, 1st range south of Hamilton road, Brantford township. 23693, Flint knife, lot 10, 1st range south of Hamilton road, also arrow heads from same lot. F. W. Waugh, Toronto. 23694, Perforated antler from Mitchell place, lot 9, 1st range south of Hamilton road. 23695, Bone awl, fibula of red deer, sharpened for use as an awl, village site on Mitchell place (old Seeley farm), lot 9, 1st range south of Hamilton road, Ontario. 23696, Pottery fragment from T. Laidlaw's and Mr. Ira Vanderlip's farms, back portions of lot 10, 1st range south of Hamilton road, found in ashes—or refuse-dump on hillside. 23697, Stone axe, found in fields near Langford, Brantford township, Ontario. 23698-23700, Three bones of red deer from which beads or tubes have been cut, found in ash-beds on Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township, Ontario. 23701, Pebble, with natural perforation, showing signs of use as a pendant, from Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township. 23702, Perforated goniobasis shell, from Mitchell place, lot 9, 1st range south of Hamilton road. 23703-23706, Four unio shells from ash beds on Mitchell place, lot 9, 1st range south of Hamilton road, also from T. Laidlaw's farm, back portion of lot 10, same range, and from Lang and Dowling farms, back portion of lots 4 and 5, 1st range, north of Hamilton road. 23707-23716, Ten pottery fragments from Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township. 23717-23747, Thirty-one scrapers from Mitchell place and vicinity lot 9, 1st range, south of Hamilton road, Brantford township, Ontario. 23748-23757, Ten bone tubes or beads, village-site on Mitchell farm, lot 9, 1st range south of Hamilton road (black one, from bed of creek), others from ash dumps and cabin sites, made apparently from the bones of various animals, such as deer and small quadrupeds and birds. 23758, Hammer-stone, grooved, John Vague, per Rev. Dr. John Maclean, Carman, Manitoba. 23759, Hammer-stone, grooved, John Fremlin, per Rev. John Maclean, Carman, Manitoba. 23760, Hammer-stone, grooved, Wm. Malouney, Carman, per Rev. Dr. John Maclean, Carman, Manitoba. 23761, Hammer-stone, grooved, Stanley Woodruff, per Rev. Dr. John Maclean, Carman, Manitoba. 23762, Human skull, Waianae, Hawaii (found on the beach), Miss Agnes Deans Cameron, Victoria, B.C. 23763, Shell necklace of 52 water-worn fragmentary univalves, worn by a Hawaiian woman; Miss Agnes Deans Cameron, Victoria, B.C. 23764, Small basket, made by a west coast of Vancouver Island Indian, Miss Agnes Deans Cameron, Victoria, B.C. 23765-23914, Disc wampum (150 pieces), F. W. Waugh, Toronto. 23915-23953, Thirty-nine small triangular neckless arrow tips of chert, found in various places in Brantford township, F. W. Waugh, Toronto. 23954, 23955, Two small and finely serrated chert saws, Brantford town-

ship. F. W. Waugh. 23956, Strip of metal from 1-8 to 3-16 in. wide and 7 3-4 inches long, cut from European brass kettle, preparatory to the making of small beads like 23197, lot 5, con. 5, Brantford township, F. W. Waugh, Toronto. 23958, catlinite bead, 2 1-4 inches long and 1-4 inch in diameter (cylindrical), F. W. Waugh, Toronto. 23959, Imperfect celt or pestle, Rev. Dr. John Maclean, Carman, Manitoba. 23960, Clay pipe bowl, Victoria Park, Collingwood, D. Williams. 23961, Large photograph (full length) of Chief Jamieson, Six Nation Indians, F. W. Waugh, Toronto. 23962, Small photograph (full length) of Wm. Jacobs, F. W. Waugh, Toronto.

From Mr. W. J. Wintemberg. 23963-64, Deer horn pottery markers from village-site on lot 10, Snyder's Road con. S., Wilmot tp. 23965, Deer horn pottery marker. Camp on lot 11, Snyder's Road con. N., Wilmot tp. 23966, Deer horn pottery marker (fragment) village-site on lot 11, con. 8, Blenheim tp. 23967, Worked bone. Village-site on lot 10, Snyder's road con. S., Wilmot tp. 23968, Rubbing stone, Lot 17, con. 12, Blenheim tp., T. Ware. 23969, Large ladle or spoon. Qu'Appelle, N.W.T. 23970, Catlinite tube-pipe. Qu'Appelle, N. W. T. 23971, Porcelain bead from a mound in South Carolina. 23972, Bone bead from village-site on lot 10, Snyder's road con. S., Wilmot tp. 23973, Pottery slick or scraper made of a species of unio. Village-site, lot 11, con. 8, Blenheim tp. 23974, Fragment of bone implement, village-site, lot 41, con. 12, N. Dumfries tp. 23975, Right ramus of lower jaw of deer (*Cariacus virginianus*), with portion holding the incisor teeth sawed off. Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23976, Sawed left ramus of lower jaw of some carnivorous mammal, perhaps a wolf, village-site on lot 10, Snyder's road Con. S., Wilmot tp. 23977, Bone of deer or elk (?), with a portion sawed off. Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23978, Phalangeal bone of a moose (?), with holes bored in at the ends. Laidlaw village-site, lot 11, con. 8, Blenheim tp., T. Ware. 23979, Notched bone awl, Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23980, Notched bone awl. Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23981, Canine tooth of black bear, village-site on lot 15, Snyder's Road con. S., Wilmot tp. 23982, Bear tusk, from Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23983, Bear tusk, Welsch's village-site, lot 9, Beasley's New Survey, Waterloo tp. 23984, Molar tooth of bear. Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23985, Canine tooth of wolf. May have been set in a handle and used as pottery markers. From the same locality as 23984. 23986, Large incisor tooth of beaver. Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23987, Left valve of unio gibbosus with umbo ground level. Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23988, Long bone tube from camp on lot 11, Snyder's Road con. N., Wilmot tp. 23989-23992, Bone awls and pottery markers from Laidlaw village-site, Blenheim tp. 23993-95, Bone awls; one broken. From village-site on lot 10, Snyder's Road con. S., and camp on lot 11, Snyder's Road con. North, Wilmot tp. 23996-24003, Fragments of pipe bowls and stems from Laidlaw village-site, Blenheim tp. 24009-10, Fragments of bowl and stem of pipes. Elliott village-site, N.

Dumfries tp. 24011, Pipe bowl, fragment, Welsch's village-site. Waterloo tp. 24012, Pipe stem. Elliott village-site, N. Dumfries tp. 24013-14, Portions of pipe bowls. Laidlaw village-site, Blenheim tp. 24015-30, Pottery fragments from Laidlaw village-site, Blenheim tp. 24031-32, Pottery fragments from Elliott village-site, N. Dumfries tp. 24033, Pottery fragment from Welsch's village-site, Waterloo tp. 24034-38, Pottery fragments from village site, lot 10, Snyder's road, con. S., Wilmot tp. 24039, Piece of burnt pottery clay. From same locality as 24034-38. 24040-42, Chunks of burnt pottery clay. 24042, may have been an animal effigy; on one end there is a rudely modeled hind leg. From Laidlaw village-site, Blenheim tp. 24043, Chert implement. Blenheim tp. 24044, Rude chert implement, from Laidlaw village-site, Blenheim tp. 24045, Fragment of limestone implement with a narrow and shallow groove around it. From same place as 24044. 24046-49, Hammer stone. Laidlaw village-site, Blenheim tp. 24050-51, Hammer stones. Lot 10, Snyder's Road, con. S., Wilmot tp. 24052, Broken celt, degraded to hammer. Same locality. 24053-54, Round pebbles from Welsch's village-site (Waterloo tp.) and Laidlaw's village-site (Blenheim tp.) respectively. 24055, Muller or pestle. Elliott village-site, N. Dumfries tp. 24056, Fish net sinker. Cayuga Lake, N.Y. 24057-63, Various stone implements, some fragmentary, Laidlaw village-site. 24064, Small celt, lot 13, con. 13, Blenheim tp. 24065, Part of a gorget (?). Laidlaw village-site. 24066-67, Roughly made adze and celt. Lot 10, Snyder's road, con. S., Wilmot tp. 24068, Slate chisel from Elliott village-site, N. Dumfries tp. 24069, Celt. Lot 4, con. 13, Blenheim tp. 24070, Celt. Lot 14, con. 13, Blenheim tp. F. Stauffer. 24071, Double-edged adz. Lot 11, con. 10, Blenheim tp. C. Hiller. 24072, Adze. Lot 11, con. 10, Blenheim tp. 24073, Unfinished celt. Lot 2, con. 12, Blenheim tp. G. Campbell. 24074, Syenite adze. Lot 16, con. 2, Block A, Wilmot tp. J. Bowman. 24075, Fragment of a nicely-made celt, Roseville, Ont., J. Good. 24076, Large piece of chert from lot 11, con. 10, Blenheim tp. C. Hiller. 24077, Chert "core," Laidlaw village-site, Blenheim tp. 24078, Unfinished grooved axe. Lot 10, con. S., Snyder's road, Wilmot tp. 24079, Piece of chert from same locality as 24076. 24080, Unfinished adze or celt. Laidlaw village-site, Blenheim tp. 24081, Rough celt, evidently an emergency tool. Elliott village-site, N. Dumfries tp. 24082, Fragment of stone implement. Laidlaw village-site, Blenheim tp. 24083, Small celt. An attempt has been made to remove one side of this specimen by pecking two grooves, one on each side, the entire length of the implement. Same locality as 24802. 24084, Stone implement. Elliott village-site, N. Dumfries tp. 24085, Chert axe. Mr. Chas. Hiller. Lot 11, con. 10, Blenheim tp. 24086, Unfinished celt. Lot 17, con. 12, Blenheim tp. 24087, Rough stone chisel. Lot 10, Snyder's Road con. S., Wilmot tp. 24088, Fragment of small chisel. Laidlaw village-site, Blenheim tp. 24089, Gorget. Halifax County, West Virginia. 24090, Half of a very fine ceremonial from Mason County, West Virginia. 24091, Celt. Mercer County, Ohio. 24092, Pestle. Big River, San Francisco County, Missouri. 24093-97, Arrowheads. Mason County, West Virginia. 24098, Chert implement. Laidlaw vil-

lage-site, Blenheim tp. 24099, Stone adze from near Honolulu, Hawaiian Islands. 24100, Nut cracker. Village-site on lot 23, con. 10, Blenheim tp. 24101, Pair of straw shoes. Tung Chow, China. 24102, Chinese chop sticks of bamboo. Tung Chow. 24103, Bank note, Tung Chow. 24104, Ink tablet. Tung Chow. 24105, Paper and envelope. Tung Chow. 24106, Pen. Tung Chow. 24107, Piece of cinerary pottery excavated from the ruins of an old abbey, supposed to be 800 years old, near Castleacre, Norfolkshire, England. Mr. John Day, Washington. 24108-109, Pottery fragments. West Alexander, Pennsylvania. 24110, Shell beads from Indian graves. Same locality. 24111, Arrowhead. West Alexander. Pa. 24112, Obsidian arrowhead of a peculiar shape. Oregon. 24113, Fragment of pipe bowl with glazed surface. Welsch's village-site, Waterloo tp. 24114, Pottery sherd. Lot 10, Snyder's road, con. S., Wilmot tp. 24115, Notched scraper. Ada, Ohio. 24116, Bird point, Ada, Ohio. 24117, Shaly chert arrowhead. Lot 17, con. 13, Blenheim tp. 24118, Arrowhead, N. Dumfries tp. 24119, Unfinished stone implement, Lot 10, Snyder's road con. S., Wilmot tp. 24120, Large piece of chert. Same locality. 24121, Fragment of limestone pipe. Same locality. 24122, Unfinished stone implement. Same locality. 24123-24, Chert implements. Same locality. 24125, Chisel. Same locality. 24126, Broken celt, degraded to hammer. Same locality. 24127, Broken adze with corners pecked and battered, the intention, no doubt, being to form a grooved implement of some sort. From same locality as Nos. 24119-126. 24128, Bone awl, lot 10, Snyder's road con. S., Wilmot tp. 24129, Chert arrowhead, lot 8, con. 13, Blenheim tp. W. Perry. 24130, Adze, lot 11, con. 10, Blenheim tp., C. Hiller. 24131-132, Chert and chalcedony arrowheads (24132 may be a scraper). From lot 12, con. 12, Blenheim tp. K. Cumming. 24133, Adze, lot 10, con. 8, Blenheim tp., J. Black. 24134-35, Bone awls, Laidlaw village-site, Blenheim tp. 24135-38, Bone awls, Elliott village-site, N. Dumfries tp. 24139, Leaf-shaped chert scraper or arrow-point, lot 12, con. 14, Blenheim tp. 24140, Bone bead, Laidlaw village-site. 24141-42, Chert scrapers, Laidlaw village-site. 24143, Rib-plate of *Chelydra serpentina*. Elliott village-site, N. Dumfries tp. 24144, Chert scraper, Blenheim tp. 24145-46, Bone implements, Laidlaw village-site (Blenheim tp.) and Elliott village-site (N. Dumfries tp.) respectively. 24147, Carved portion of bone awl, Laidlaw village-site. 24148, Worked bone, Elliott village-site, N. Dumfries tp. 24149, Fragment of bowl of a clay pipe. Laidlaw village-site. 24150, Shell of *Marginella conoidalis*, ground at the apex to admit a thread. Laidlaw village-site. 24151, Part of deer's antler. Laidlaw village-site. 24152, Arrowhead, Laidlaw village-site. 24153, Spear head, Waterloo tp. 24154-56, Pottery fragments. Pre-Neutral camp site, lot 13, con. 6, Blenheim tp. J. F. Rathbun. 24157, Grooved axe. Same locality. 24158-62, Arrowheads from same locality. 24163, Scraper from same locality as Nos. 24154, 24162. 24164, Part of stone implement. Village-site, lot 14, con. 10, Blenheim tp. 24165, Broken chert perforator. Village-site, lot 14, con. 10, Blenheim tp. 24166, Pottery fragment, lot 14, con. 10, Blenheim tp. 24167, Shell of *Unio gibbosus*; may have been used as a pottery slick, lot 10, Sny-

der's road con. S., Wilmot tp. 24168, Fragment of another shell of the same species, from the same locality, which appears to have been perforated. 24169, Fragment of marked pottery. Same locality. 24170, Fragment of pipe bowls from same locality. 24171-174, Scrapers from same locality as Nos. 24167-70. 24175, Fragment of arrowhead with concave base. Laidlaw village-site, Blenteim tp. 24176, Fragment of clay pipe bowl. Laidlaw village-site. 24177-78, Adzes, Lot 10, Snyder's Road con. S., Wilmot tp. 24179, Pottery fragment from village-site on lot 23, con. 10, Blenheim tp. 24180, Grooved axe found near Toronto. F. Lederman, Toronto, Ont. 24181, Fragment of an adze used as a hammer. Lot 10, con. S., Snyder's road, Wilmot tp. 24182, Unfinished gorget. Lot 11, con. 10, Blenheim tp. C. Hiller. 24183, Part of stone implement, may have been a pottery smoother. Several fragments of the same shape have been found on different village-sites in Oxford and Waterloo, lot 10, Snyder's road con. S., Wilmot tp. 24184, Small well-made chisel, Laidlaw village-site, Blenheim tp. 24185, Stone implement. No. 24183, when whole, may have been of same shape. This specimen is from the same locality. 24186, Small celt, Laidlaw village-site. 24187, Chert implement. Blenheim tp. 24188, Part of stone implement, apparently of the same class as Nos. 24183 and 24189. Lot 14, con. 10, Blenheim tp. 24189, Large arrowhead, Blenheim tp. 24190, Part of chert implement, lot 12, con. 12, Blenheim tp. K. Cumming. 24191, Carved bone bead. Village-site on lot 23, con. 10, Blenheim tp. 24192, Portion of shell of *unio luteolus*, lot 10, Snyder's road con. S., Wilmot tp. 24193, Worked bone, lot 10, Snyder's road con. S., Wilmot tp. 24194, Broken shell, apparently a species of *Quadrula*, with umbo ground level. Village-site, lot 10, Snyder's road con. S., Wilmot tp. 24195, Chert implement. Blenheim tp. 24196-200, Arrowheads, Blenheim tp. 24201, Chisel. Village-site on lot 23, con. 10, Blenheim tp. 24202, Rude chisel. Village-site, lot 10, Snyder's road con S., Wilmot tp. 24203-204, Bone beads from village-site on lot 23, con. 10, Blenheim tp. 24205, Pipe stem, village-site, lot 23, con. 10, Blenheim tp. 24206, Under portion of large scraper, from same locality as the two preceding specimens. 24207, Arrowhead with serrated edge. Village-site, lot 23, con. 10, Blenheim tp. 24208, Chert specimen, village-site, lot 23, con. 10, Blenheim tp. 24209, Arrowhead, Blenheim tp. 24210, Worked bone, village-site, lot 23, con. 10, Blenheim tp. 24211, Under portion of a very fine celt from village-site on lot 23, con. 10, Blenheim tp. 24212, Rude chert implement. Lot 12, con. 11, Blenheim tp. K. Cumming. 24213, Small adze or chisel, Village-site on lot 10, Snyder's road con S., Wilmot tp. 24214, Spearhead, Blenheim tp. 24215, Pottery fragment. Lot 20, con. 3, Block A, Wilmot tp. 24216, Chert arrowhead. Blenheim tp. 24217, Chert implement, Blenheim tp. 24218, Scraper (?) Blenheim tp. 24219-20, Scrapers, Blenheim tp. (Village-site on lot 11, con. 8.) 24221, Small chipped piece of chert, looks like an arrowhead, Blenheim tp. 24222-23, Small pottery fragments, lot 4, con. 12, Blenheim tp. 24224, Cylindrical bone bead. Village-site on lot 10, Snyder's road con. S., Wilmot tp. 24225, Bone bead, blackened and polished, lot 10, Snyder's road

con. S., Wilmot tp. 24226, Disc shaped bone bead. Lot 10, Snyder's road con. S., Wilmot tp. 24227, Bead made of shell of *Melantho decisa*, lot 10, Snyder's road con. S., Wilmot tp. 24228-229, Bone beads, village-site, lot 10, Snyder's road con. S., Wilmot tp. 24230, Arrowhead, from lot 14, con. 11, Blenheim tp. W. Hall. 24231, Large heavy celt, lot 11, con. 10, Blenheim tp. C. Hiller. 24232, Adze, lot 12, con. 13, Blenheim tp. A Pringle. 24233, Iron axe. Found on lot 23, con. 14, Blenheim tp. J. Knox, per T. Ware. 24234, Bone tube bearing pictographs, Beverly tp. C. H. Roberts. 24235, Cast of Bird Amulet. Original was found in Ancaster tp. C. H. Roberts. 24236, Pottery fragment (rim). Pre-Neutral camp on lot 8, con. 12, Blenheim tp. 24237, Half of an unfinished gorget from the same camp. 24238, Hammer stone, Laidlaw village site, Blenheim tp. 24239, Whetstone or rubbing stone. Laidlaw village-site. 24240, Fragment of another stone implement, shaped like Nos. 24183 and 24185. From Laidlaw village-site. 24241, Scraper (?), Blenheim tp. T. Ware. 24242, Bone bead. Village-site, lot 11, con. 8, Blenheim tp. 24243, Canine tooth of a bear. Laidlaw village-site. 24244, Bone awl, Village-site on lot 13, con. 10, Blenheim tp. 24245, Spearhead, lot 13, con. 12, Blenheim tp. 24246, Scraper or knife, lot 12, con. 12, Blenheim tp. 24247-48, Scrapers, lot 17, con. 3, East Oxford tp. 24249, Rude arrowhead, lot 17, con. 3, East Oxford. 24250, Pottery fragment from near Pre-Neutral camp on lot 17, con. 3, E. Oxford tp. 24251, Pipe stem, lot 10, Snyder's road con. S., Wilmot tp. 25252, Portion of shell of *Unio ventricosus*. Village-site, lot 13, con. 10, Blenheim tp. 25253, Perforator. Village-site, lot 13, con. 10, Blenheim tp. 24254, Joint of fossil lily encrinite found in an ashbed on lot 13, con. 10, Blenheim tp. 24255, Scraper. Village-site, lot 13, con. 10, Blenheim tp. 24256, Pottery fragment. Pre-Neutral camp on lot 8, con. 12, Blenheim tp. 24257, Perforator from village-site on lot 13, con. 10, Blenheim tp. 24258, Shell of *Unio gibbosus* (?), village-site, lot 13, con. 10, Blenheim tp. 24259-60, Scrapers, village-site, lot 13, con. 10, Blenheim tp. 24261, Arrowhead. Village-site, lot 13, con. 10, Blenheim tp. 24262, Chisel, village-site, lot 13, con. 10, Blenheim tp. 24263, Wing of unfinished "butterfly" banner-stone. Lot 13, con. 13, Blenheim tp. 24264, Ungual phalanges of deer. Laidlaw village-site, Blenheim tp. 24265, Hammer stone. Village-site, lot 13, con. 10, Blenheim tp. 24266, Portion of pipe bowl, Laidlaw village-site, Blenheim tp. 24267, Chert implement, lot 12, con. 12, Blenheim tp. 24268, Chert knife (semi-lunar shape), lot 12, con. 12, Blenheim tp. K. Cumming. 24269, Tooth of bear, may have been used as a bead, Laidlaw village-site. 24270-71, Arrowheads. Lot 12, con. 12, Blenheim tp. 24272, Shell of *Unio gibbosus*, with umbo ground flat. Hunter village-site, lot 13, con. 10, Blenheim tp. 24273, Chert perforator (?), Hunter village-site, Blenheim tp. 24274-77, War point, Hunter village-site, Blenheim tp. 24278, Bone bead. Hunter village-site, Blenheim tp. 24279, *Pyramidula alter nata*, found in ash bed, Hunter village-site, Blenheim tp. 24280-81, Arrow heads of a type most frequently found on village-sites in Blenheim. Hunter village-site. 24282-3, Pottery fragments. Hunter village-site. 24284, Bone bead. Hunter village-site. 24285, Rough granite implement. Hunter village-site. 24286 (a and b), Pottery fragments, Burford tp. 24287, Leaf-shaped arrowhead. Laid-

law village-site, Blenheim tp. 24288, Arrowhead, lot 9, con. 11, Blenheim tp. H. Davison. 24289, Adze in process of manufacture from near pre-Neutral camp on lot 8, con. 12, Blenheim tp. 24290, Pottery fragments from same place. 24291. Very small chisel, Laidlaw village-site. 24292, Pottery fragment. Laidlaw village-site. 24293, Chert knife (?). from near Brantford. E. R. Boniface. 24294, Pottery fragment. Hunter village-site, Blenheim tp. 24295, Pottery fragment, lot 13, con. 6, Blenheim tp. J. F. Rathbun. 24296, Half of a pick-like banner-stone, lot 13, con. 13, Blenheim tp. 24297, Chert implement. Hunter village-site, Blenheim tp. 24298, Rude arrowhead, lot 17, con. 3, E. Oxford tp. 24299, Chert implement, lot 12, con. 11, Blenheim tp. 24300, Rough celt, lot 12, con. 12, Blenheim tp. 23301, Bone bead, Laidlaw village-site, Blenheim tp. 24302, Stone disk with pit in centre. Laidlaw village-site. 24303-306, Broken shell of *Unio gibbosus*, appears to have been perforated; pottery fragment; bone awl and very small celt, all from village-site on lot 156, German Co.'s Tract, Waterloo tp. 24307-309, Bone awls. Rudell village-site, Blenheim tp. 24310, Piece of chipped stone. Rudell village-site, 24311, Arrowheads, Rudell village-site. 24312, Bone bead curiously pitted. Rudell village-site. 24313, Shell of *Pleurocera subulare*, a mollusc found in the Great Lakes. Rudell village-site. 24314, Fossil Brachiopod shell from Rudell village-site. 24315, Bone awl. Village-site on lot 8, con. 8, Blenheim tp. 24316, Pottery fragment, village-site on lot 8, con. 8, Blenheim tp. 24317, Fragment of pipe bowl, village-site, lot 8, con. 8, Blenheim tp. 24318-19, Rude chert scrapers, village-site, lot 8, con. 8, Blenheim tp. 24320, Stone implement, village-site, lot 8, con. 18, Blenheim tp. 24321, War point. Rudell village-site, Blenheim tp. 24322, Arrowhead, Blenheim tp. 24323, Adze. Lot 11, con. 9, Blenheim tp. J. Harmer. 24324, Large chert object, lot 11, con. 9, Blenheim tp. J. Harmer. 24325, Chert knife, lot 11, con. 9, Blenheim tp. J. Harmer. 24326, War point, lot 11, con. 10, Blenheim tp. C. Hiller. 24327, Arrowhead with bifurcated stem, lot 11, con. 10, Blenheim tp. C. Hiller. 24328-329, Arrowhead and spearhead, lot 2, con. 10, Blenheim tp. D. Brown. 24330, Small celt, lot 10, con. 10, Blenheim tp. J. Baxter. 24331-62, Unfinished chert leaf-shaped objects found en cache on the farm of Mr. Arthur Currah, lot 3, con. 10, Blandford tp. From Messrs. Currah and Bullock, the finders. 24363, Part of shell of *Unio gibbosus*, Hunter village-site, Blenheim tp. 24364, Arrowhead rhomboidal in cross section, lot 17, con. 3, E. Oxford tp. 24365, Arrowhead, lot 19, con. 12, Blenheim tp. I. Hewitt. 24366, Adze, lot 19, con. 12, Blenheim tp. I. Hewitt. 24367, Chert knife (?), lot 9, con. 13, Blenheim tp. H. Kaufman. 24368, Chalcedony arrowhead, lot 12, con. 12, Blenheim tp. K. Cumming. 24369-71, Leaf-shaped arrowheads, Blenheim tp. 24372, Chalcedony leaf-shaped implement, lot 22, con. 13, Blenheim tp. J. Wright. 24373, Arrowhead, lot 11, con. 11, Blenheim tp. W. Thomson. 24374, Arrowhead of a peculiar shape, lot 13, con. 6, Blenheim tp. J. F. Rathbun. 24375, Very fine drill with tip broken off. Lot 2, con. 12, Blenheim tp. G. Campbell. 24376, Part of slate implement, south half lot 12, con. 13, Blenheim tp. 24377-82 Bone beads from the Coleman village-site, lot 11, con. 2, Block

A, Wilmot tp. 24383, Bead cut from the jaw bone of a deer. Coleman village-site. 24384-85, Beads colored and blackened. Coleman village-site. 24386, Beads ornamented with incised lines. Coleman village-site. 24387-392, Bone awls. Coleman village-site. 24393, *Astragalus* of deer, may have been used in playing a game. Coleman village-site. 24394, Bangle or pendant made from a portion of the carapace of *Chrysemys picta*. 24395-97, Worked bones, Coleman village-site. 24398, Part of a small gouge like bone implement. Coleman village-site. 24399, Part of a human skull. Coleman village-site. 24400, Vertebra of a large fish; may have been used as a bead. Coleman village-site. 24401-405, Shells of *Melantho decisa*, used as beads. Coleman village-site. 24406, Shells of *Pyramidula alternata*, found in ashbeds. Coleman village-site. 24407, Shell of *Zonites fuliginosus*. Coleman village-site. 24408-409, Shells of *Polygyria albolabris* and *Polygyria dentifaria* from ash beds, Coleman village-site. 24410, Perforated shell of *Goniobasis livescens*. Coleman village-site. 24411, Shell of *Unio gibbosus* with umbo near the hinge ground flat. Coleman village-site. 24412, Another shell of the same species also ground down until a hole appeared in the side. Coleman village-site. 24413, Shell of the above species with anterior portion of valve cut off. Coleman village-site. 24414-15, Portions of shells of *Unio luteolus* and *Margaritana costata*. Coleman village-site. 24416, Femur of *Chelydra serpentina*. Coleman village-site. 24417-18, Small black slate bangles or pendants. Coleman village-site. 24419, Small black slate pebble. Coleman village-site. 24420, Small smooth stone, kidney shaped. Coleman village-site. 24421-24, Arrowheads, Coleman village-site. 24425-26, Scrapers. Coleman village-site. 24427, Large chert implement. Coleman village-site. 24428, Chipped piece of slate, looks like an unfinished spear head. Coleman village-site. 24429, Piece of worked deer antler. Coleman village-site. 24430, Piece of quartzite stone implement. Coleman village-site. 24431, Fossiliferous limestone pebble with hole (broken). Coleman village-site. 24432, Fossil coral, from ash bed. Coleman village-site. 24433, Chert chip with very sharp edges; may have been used as a knife. Coleman village-site. 24434-59, Pottery fragments. Coleman village-site. 24460-63, Fragments of pipe bowls. Coleman village-site. 24464, Portion of a clay ring (?). It may also have been part of a pot. Coleman village-site. 24465, Small rude adze, Coleman village-site. 24466, Fragment of "stamped" pottery ware. Coleman village-site. 24467, Fragment of a very small clay vessel. Coleman village-site. 24468-72, Pottery fragments. Coleman village-site. 24473, Part of a large clay vessel. Coleman village-site. 24474, Clay pot (restored), rim. Coleman village-site. 24475-76, Casts of slate gorgets, Blenheim tp. 24477, Wooden shoe, Philippine Islands. 24478, Pair of small shoes. Cairo, Egypt. 24479-80, Arrowheads, lot 12, con. 9, Blenheim tp. 24481, Fish scales (?). Coleman village-site. Wilmot tp. 24482, Iron axe, found under a large pine stump. Lot 4, con 2, eastern section Wellesley tp. M. Littwiller. 24483-88, Shells of *Pleurocera subulare* from Hunter and Laidlaw village-sites, Blenheim tp. 24489, Chert scraper, lot 22, con. 11, Blenheim tp. Wm. Gracey. 24490-91, Arrowheads, lot 23, con. 11, Blenheim tp. R. Hewitt. 24492, Pes-

tle, lot 21, con. 10, Blenheim tp. Mr. Milgau. 24493, Celt, lot 20, con. 11, Blenheim tp. Mr. Bristow. 24494, Unfinished gorget, lot 11, con. 9, Blenheim tp. 24495, Fragment of gorget. Found and donated by the late Mr. Henry Davison, lot 8, con. 11, Blenheim tp. 24496, Gorget or pendant donated by Mr. James Harmer, lot 11, con. 9, Blenheim tp. 24497, Pendant, lot 11, con. 9, Blenheim tp. J. Harmer. 24498, Fragment of an unfinished gorget, lot 13, con. 13, Blenheim tp. 24499, Unfinished pendant, lot 13, con. 13, Blenheim tp. 24500, Small pyriform pendant, Neutral village-site. Lot 11, con. 8, Blenheim tp. 24501, Bird amulet, lot 13, con. 13, Blenheim tp. 24502, Spearhead or knife, Pike County, Ill., U. S. A. 24503, Chert implement, Waterloo tp. E. Chapman. 24504, Spearhead, lot 4, con. 12, Blenheim tp. E. Chapman. 24505, Spearhead, lot 13, con. 13, Blenheim tp. 24506, Spearhead, Wilmot tp. 24507, Spear head. Donated by Mr. Wm. Cook. Lot 12, con. 11, Blenheim tp. 24508, Spear head with beveled edge. Lot 1, con. 11, Blenheim tp. 24509, Arrowhead, lot 8, Snyder's road con N., Wilmot tp. L. Scherrer. 24510, Unfinished spear head. Lot 11, con. 10, Blenheim tp. C. Hiller. 24511, Spearhead. Donated by Mr. Thomas Ware, Plattsville, Ont. 24512, Spearhead, Blenheim tp. T. Ware. 24513, Arrowhead, lot 11, con. 10, Blenheim tp. D. Mackie. 24514, Arrowhead, New Dundee, Ont. E. Chapman. 24515, Arrowhead, lot 11, con. 10. Blenheim tp. 24516, Arrowhead, Plattsville, Ont. T. Ware. 24517, Leaf-shaped arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24518, Unfinished arrowhead, Washington, Ont. 24519, Arrowhead, Wilmot tp. R. McNichol. 24520, Arrowhead, Plattsville, T. Ware. 24521, Arrowhead, lot 3, con. 14, Blenheim tp. E. Chapman. 24522, Very roughly made arrowhead, lot 12, con. 12, Blenheim tp. K. Cumming. 24523-524, Arrowheads. Donated by Mr. C. Henneberg, Washington, Ont. 24525-547, White arrowheads, Savannah Valley, Georgia, U. S. A. 24548, Rhyolite arrowhead, Savannah Valley, Georgia, U.S.A. 24549-552, Arrowheads, Savannah Valley, Georgia. 24553, Arrowhead, lot 4, con. 12, Blenheim tp. 24554, Chalcedony knife, lot 10; con. 13, Blenheim tp. R. Richmond. 24555-556, White quartz arrowheads, Galt. 24557, Roughly made arrowhead. Plattsville. T. Ware. 24558, Very thick arrowhead, lot 9, con. 11, Blenheim tp. H. Davison. 24559, Rude arrowhead, lot 40, con. 12, N. Dumfries tp. Wm. Bunyan. 24560-561, White quartz arrowheads. Florida. 24562, Rude war point, Neutral village-site. Lot 11, con. 8, Blenheim tp. 24563, Small war point, donated by Mr. H. Davison, lot 9, con. 11, Blenheim tp. 24564, Small chert perforator. Plattsville. T. Ware. 24565, War point. Lot 13, con. 13, Blenheim tp. 24566, Rude war point. Plattsville. T. Ware. 24567, War point. Lot 10, Snyder's road con. S., Wilmot tp. 24568, Leaf shaped arrowhead. Lot 10, Snyder's road con. S., Wilmot tp. 24569-570, Leaf-shaped arrowheads. Plattsville. T. Ware. 24571, Thick, leaf-shaped piece of chert. Neutral village-site, lot 11, con. 8, Blenheim tp. 24572, Arrowhead. Lot 14, con. 11, Blenheim tp. 24573, Arrowhead. Blenheim tp. 24574, Leaf-shaped scraper or knife. Neutral village-site, lot 11, con. 8. Blenheim tp. 24575, Knife (?), lot 9, con. 11, Blenheim tp. H. Davison. 24576, Black chert implement (leaf shaped). Lot 1, con. 12, Blenheim tp. J.

Histand. 24577, Quartzite arrowhead. Galt. 24578-581, Arrowheads, Galt, Ont. 24582-583, Slate arrowheads. Galt. 24584-88, Arrowheads. Galt. 24589, Black chert arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24590, Perforator. Blenheim tp. 24591-592, Arrowheads. Brown Co., Ohio. 24593, Arrowhead. Lot 12, con. 11, Blenheim tp. A. Wintenberg. 24594, Arrowhead. Triangular in cross section. Lot 10, con. 10, Blenheim tp. 24595, Flint knife. N. Dumfries tp. E. Chapman. 24596, War point with convex edges. Neutral village-site, lot 11, con. 8, Blenheim tp. 24597, Arrowhead. Lot 9, con. 11, Blenheim tp. H. Davison. 24598, Arrowhead, Galt. 24599, War point, lot 13, con. 13, Blenheim tp. 24600, Arrowhead, lot 11, con. 10, Blenheim tp. H. Baxter. 24601, Arrowhead with serrated edge. Lot 43, con. 12, N. Dumfries tp. W. Hope. 24602, Serrated edge arrowhead. New Dundee. 24603, Arrowhead. Lot 11, con. 10, Blenheim tp. H. Baxter. 24604, Arrowhead. Lot 11, con. 10, Blenheim tp. 24605, Arrowhead. Lot 5, con. 4, Block A., Wilmot tp. N. Bock. 24606, Rude scraper. Plattsville. T. Ware. 24607, Perforator, tip polished. Donated by Mr. H. Davison, lot 9, con. 11, Blenheim tp. 24608, Chert knife (?), Plattsville. T. Ware. 24609, War point. Lot 9, con. 11, Blenheim tp. H. Davison. 24610, Chert knife. Lot 12, con. 11, Blenheim tp. K. Cumming. 24611, Scraper. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24612, Flint knife. Lot 9, con. 11, Blenheim tp. H. Davison. 24613, Chert knife with edge worn smooth. Lot 40, con. 12, N. Dumfries. W. Bunyan. 24614, Unfinished slate implement. Lot 13, con. 13, Blenheim tp. 24615, Scraper. Lot 10, Snyder's road con. S., Wilmot tp. 24616, Fragment of a chipped piece of slate, evidently intended for a gorget. Lot 13, con. 13, Blenheim tp. 24617, Scraper. Lot 8, con. 13, Blenheim tp. W. Perry. 24618, Chert implement of a peculiar shape. Neutral village-site, lot 11, con. 8, Blenheim tp. 24619, "Goose-beak" scraper. Village-site, lot 11, con. 8, Blenheim tp. 24620, Scraper. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24621, War point. Lot 13, con. 13, Blenheim tp. 24622, Arrowhead or knife. Lot 6, con. 14, Blenheim tp. J. Cassel. 24623, Small scraper or turtleback. Lot 6, con. 4, Block A., Wilmot tp. 24624, Small arrowhead. North Lake village-site, lot 10, Snyder's road con N., Wilmot tp. 24625, Black chert arrowhead, Wilmot tp. 24626, Chert perforator, Village-site, lot 11, con. 8, Blenheim tp. 24627, Fragment of a red quartzite drill, lot 11, con. 10, Blenheim tp. H. Baxter. 24628, Fragment of a drill. Plattsville. T. Ware. 24629-632, Drills or perforators. Lot 11, con. 10, Blenheim tp. H. Baxter. 24633, Rude perforator. Village-site, lot 40, con. 12, N. Dumfries tp. 24634-636, Perforators. Village-site, lot 11, con. 8, Blenheim tp. 24637, Drill, lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24638, Double-pointed drill, Galt. W. Cudney. 24639-648, Scrapers. Village-site, lot 10, Snyder's road con. S., Wilmot tp. 24649-650, Scrapers, lot 11, con. 10, Blenheim tp. H. Baxter. 24651, Notched scraper, lot 9, con. 11, Blenheim tp. H. Davison. 24652-656, Rude scrapers. Village-site, lot 11, con. 8, Blenheim tp. 24657, Scraper (?). Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24658, Diminutive pipe. Village-site, lot 11, con. 8, Blenheim tp. 24659, Bowl of large clay pipe of the "cornet" type. Village-site, lot 9, Beasley's New Sur-

vey, Waterloo tp. 24660, Small pot excavated from a mound apparently made before the conquest of Mexico by the Spaniards. Costa Rica. Purchased from F. H. Lattin, Albion, N.Y. 24661, Chert implement, perhaps an unfinished arrowhead. Village-site, lot 11, con. 8, Blenheim tp. 24662, Chert implement, Blenheim tp. 24663, Red quartzite arrowhead, lot 11, con. 10, Blenheim tp. H. Baxter. 24664, Leaf-shaped arrowhead. Village-site, lot 11, con. 3, Blenheim tp. 24665-682, Fragments of war points and chert implements: (24665-68, from village-site, lot 10, Snyder's road con. S., Wilmot tp. 24669-70, from village-site, lot 11, con. 8, Blenheim tp. 24671, From village-site on lot 13, con. 10, Blenheim tp. 24672-73, Village-site on lot 23, 10th con., Blenheim tp. 24674-79, Various parts of Blenheim tp. 24680, Burgess Lake. 24681-82, Lot 13, con. 13, Blenheim tp.) 24683, Chert scraper from near Cooley Pond, Burford tp. 24684, Rough chert implement, Blenheim tp. 24685, Chert implement. Lot 40, con. 12, N. Dumfries tp. 24686, Rough arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24687, Unfinished chert arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24688, Unfinished arrowhead. Plattsville. T. Ware. 24689, Rough chert implement. Village-site on lot 11, con. 8, Blenheim tp. 24690, Chipped piece of white quartz. Lot 10, Snyder's road con. S., Wilmot tp. 24691, Heavy chert implement. Village-site on lot 11, con. 8, Blenheim tp. 24692-693, Lumps of chert. Village-site, lot 10, Snyder's road con. S., Wilmot tp. 24694, "Goose-beak" scraper. Camp on lot 11, Snyder's road, con. N., Wilmot tp.

From Mr. R. T. Anderson.

Village-site No. 1.—24695, Piece of stone, used for polishing, camping site No. 1. 24696, 24697, 24698, Pipe bowls (camping site 7). 24699, 24700, 24701, Pieces of clay pipes (camping site No. 3). 24702, 24703, 24704, Unio shells, unio complanatus. 24705, Piece of pipe. Pieces of worked chert. 24718, 24719, Flint chips. 24720, 24721, 24706-7, 24708, 24709, 24710, 24711, 24712, 24713, 24714, Pottery. 24715, Bone awl, used also as a tally, camping site No. 7. 24716, 24717, Pieces of worked chert. 24718, 24719, Flint chips. 24720, 24721, 24722, 24723, Pieces of chert arrowheads. 24724, 24725, Roughed-out pieces of flint. 24726, Flint drill, broken. 24727, Half of flint scraper. 24728, 24729, 24730, Bone pins, horn. 24731, 24732, 24733, Pottery. 24734, Half of banner-stone, Huronian slate. Lot 14, con. 3, Malahide tp. J. McTaggart. 24735, Gorget, lot 6, con. 7, village-site 10, Bayham tp. 24736, Gorget, lot 6, con. 7, village-site 10, Malahide tp. 24737, Flint implement, triangular, lot 23, con. 1, village-site 13, Yarmouth, close to Lake Erie, gorget, lot 6, con. 7, village-site 10, Bayham township. 24378, 24379, Drill rest, lot 23, con. 1, village-site 13, Yarmouth. 24740, Leaf-shaped implement, lot 23, con. 1, village-site 13. 24741, Arrowhead, chert, lot 7, con. 6, village-site 2, Malahide tp. 24742, Spearhead, lot 27, con. 3, village-site 15, Yarmouth. 24743, Leaf-shaped implement, lot 27, con. 3, village-site 15, Yarmouth. 24744, Leaf-shaped implement, oblong, con. 7, village-site 10, Bayham tp. 24745, Flint im-

plement, Malahide tp. 24746, Half of banner-stone, Huronian slate. Lot 6, con. 7, Bayham tp. 2474, Unfinished drill, lot 7, con. 5, Yarmouth. 24748, Flint flake, lot 7, con. 5, Malahide tp. 24749, Drill, Malahide tp. Camp site No. 4.—24750, 24751, Pieces of pottery. 25752, Piece of bowl of a very large clay pipe. 24753, Bone needle. 24754, Horn-bead, nearly finished. 24755, Piece of clay pipe bowl. 24756, Piece of deer bone. 24757, Piece of clay pipe. Camp site No. 5—24758, Piece of human bone. 24759, Piece of stem and pipe bowl. 24760, Piece of celt. 24761, Piece of pottery. Village-site No. 3—24762, 24763, Two pieces of clay pipe bowls. 24764, 24765, Pieces of pottery. 24766, 24767, Pieces of pottery, showing burnt food. 24768, 24769, Pieces of flint. 24770, Two pieces of lower jaw of red deer. 24771, One piece of pottery. 24772, Human rib. Village-site No. 1.—24773, One *Unio* shell, worn 24774, One deer horn. 24775, 24776, 24777, Deer bones. 24778, Piece of deer horn cut. 24779, One deer tooth. 24780, One black squirrel jaw. 24781, One hard ray or spine of pectoral fin of channel catfish. 24782, Unfinished bone awl of deer-shank. 24783, Finished bone awl of deer-shank. 24784, 24785, Species of channel catfish. 24786, 24787, Pieces of deer cranium. 24788, 24789, 24790, 24791, 24792, Deer bones. 24793, Vertebra with broken flint arrow imbedded in the bone. 24794, 24795, Black squirrel jaws. 24796, 24797, Pieces of deer skulls. 24798, 24799, 24800, 24801, 24802, 24803, 24804, Deer teeth and pieces of jaw. 24085, 24086, Bear tusks. 24087, Costal plates, snapping turtle. 24808, 24809, 24810, 24811, 24812, pieces of clay pipe stems. 24812, Awl, broken tip, and then smoothed. 24813, bone awl. 24814, Phalange of deer. 24815, Awl, made of bone of bird. 24816, Burnt claw bone. 24817, Slate pendant. 24818, 24819, 24820, 24821, 24822, 24823, Flint pieces. 24824, Worked slate pebble. 24825, 24826, 24827, 24828, 24829, Pottery. 24830, 24831, 24832, Well-marked specimens of pottery. 24833, Unfinished stone-pipe, lot 6, con. 2, village-site 5. 24834, Drilled stone. Malahide tp. 24835, Heavy flint implement, lot 6, con. 2, Malahide tp. 24836, Flint implement, Yarmouth. 24837, Large flint spearhead, lot 6, con. 7, village-site 10, Bayham tp. 24838, Part of quartz implement, lot 27, con. 3, village-site 15, Malahide tp. 24839, Flint scraper. Malahide tp. 24840, Broken flint arrows, Malahide tp. 24841, Triangular flint, lot 6, con. 7, Bayham tp. 24842, Skull, con. 6, Malahide tp. 24843, One-armed banner-stone, Malahide tp. 24844, 24845, Pieces of carapace of mud-turtle. 24846, Bone awl, end showing rubbing down after being broken. 24847, Bit of a deer rib. 24848, Axis vertebra of red deer. 24849, Base of skull of red deer. 24850, 24851, 24852, Dentary bones of channel catfish. 24853, Tibia of large beaver. 24854, Lynx, leg bone. 24855, Angle of deer jaw. 24856, Piece of crania of channel catfish. 24857, Cranial bone. 24858, Dentary of fish. 24859, Jaw of woodchuck. 24860-24861, Lower jaw of raccoon. 24862-24863, Tibial bones of Ruffed Grouse. 24864, 24865, Deer claw. 24866, Ulna of black squirrel. 24867, 24868, Pottery. 24869, Ulna of beaver. 24870, Humerus of black bear. 24871, Lumbar vertebra of deer. 24872, Fragment of slate celt, camp site 7. 24873, Bone, end cut off, camp

site 3. 24874, Small flint arrowhead, out of ash bed. 24875, Piece of horn, cut off—workman had started to drill hole. 24876, Piece of solid ashes. 24877, Bone, os calcaneum of deer, camp site 1. 24878, Bone tip of conjoined metacarpels and metatarsals of deer. 24879, 24880, Pottery. 24881, Piece of pottery, showing burnt food. 24882, Plain clay pipe bowl, camp site 1. 24883, Bone, ulna of raccoon. 24884, Scraper. 24885-907, Pottery fragments. 24908-18, Bones, various. 24919, Unio, right valve (*margaritana rugosa*). 24920, Distal portion of radius and ulna of wild turkey. 24921, Skull of Indian dog (site 3). 24921, Ceremonial stone axe. Carib Indians, St. Vincent, West Indies, Very Rev. Dean Harris. 24922, Edge-grooved stone axe, broad blade. Carib Indians, St. Vincent, West Indies, Very Rev. Dean Harris. 24923, Small, plain stone axe. Carib Indians, St. Vincent, West Indies. Very Rev. Dean Harris. 24924, Northwest buckskin suit. Rev. Dr. John Maclean. 24925-927, Arrowheads; two chert, one quartzite. Near Guelph (?). Rev. Dr. John Maclean. 24928-929, Chromo-lithographs of Sioux Chiefs, Red Cloud and Sitting Bull. Miss F. D. Threlkeld. 24930, Chert blade, or spearhead, Dundas street, near Cooksville, July 1st, 1902. D. G. McNab, Toronto. 24931, Model of Eskimo kayak, Greenland. Collected by Capt. Nye, of London, Eng. W. J. Wintemberg. 24932, Clavicle of large species of bird, Coleman village-site, lot 11, con. 2, Block A, Wilmot tp. W. J. Wintemberg. 24933, Adze, south half of lot 21, con. 2, Blenheim tp. (C. Buck.) W. J. Wintemberg. 24934, Stone tube, lot 11, con. 3, Blenheim tp. (J. McCrow.) W. J. Wintemberg. 24935, Spear head, lot 23, con. 3, Blenheim tp. W. J. Wintemberg. 24936, Gorget. South half lot 21, con. 2, Blenheim tp. (C. Buck.) W. J. Wintemberg. 24937, Unfinished adze. Village-site No. 4, Blenheim tp. W. J. W. 24938, Adze. South half of lot 21, con. 6, Blenheim tp. (J. Wilkins.) W. J. W. 24939, Leaf-shaped flint. Village-site No. 4, Blenheim tp. W. J. W. 24940, Spearhead. Lot 6, con. 8, Blenheim tp. (A. Cooper.) W. J. W. 24941, Shell of unio ventricosus, with umbo ground down until a hole appeared. Coleman village-site, Wilmot tp. W. J. W. 24942, Arrowhead. South half of lot 1, con. 1, Blenheim tp. (D. M. Lawson.) W. J. W. 24944, Pottery fragment. Village-site No. 1, Blenheim tp. Presented by S. K. Benham, Princeton, Ont. W. J. W. 24945, Lower jaw of an extremely aged person. Village-site No. 2, Blenheim tp. W. J. W. 24946, Large piece of chert. Village-site No. 5, Blenheim tp. W. J. W. 24947, Fragment of slate gorget. Village-site No. 2, Blenheim tp. W. J. W. 24948, Worked stone. Village-site No. 2, Blenheim tp. W. J. W. 24949, Bone awl. Village-site No. 2, Blenheim tp. W. J. W. 24950, Fragment of pipe bowl. Village-site No. 2, Blenheim tp. W. J. W. 24951-953, Pottery fragments. Village-site No. 2, Blenheim tp. W. J. W. 24954-955, Perforators. Village-site No. 2, Blenheim tp. W. J. W. 24956-958, Arrowheads and knife (?). Village-site No. 2, Blenheim tp. 24959-961, Leaf-shaped chert implements. Village-site No. 1, Blenheim tp. W. J. W. 24962-963, Perforators. Village-site No. 3, Blenheim tp. W. J. W. 24964-965, Arrowheads. Village-site No. 3, Blenheim tp. W. J. W. 24966-968, Pottery fragments from Force's farm, con. 2, Burford tp. Presented by S. K. Ben-

ham, Princeton, Ont. W. J. W. 24969-978, Pottery fragments. Coleman village-site, Wilmot tp. W. J. W. 24979, Pipe bowl. Coleman village-site, Wilmot tp. W. J. W. 24980-981, Fragments of pipe bowls. Coleman village-site, Wilmot tp. 24982, Portion of shell of *unio luteolus*, which may have been used as a pottery slick. Coleman village-site, Wilmot tp. W. J. W. 24984, Canine tooth of bear. Coleman village-site, Wilmot tp. W. J. W. 24985, Implement made of deer horn. Coleman village-site, Wilmot tp. W. J. W. 24986-989, Bone beads. Coleman village-site, Wilmot tp. W. J. W. 24990-992, Bone awls. Coleman village-site, Wilmot tp. W. J. W. 24993, Carbonized corn leaves. Coleman village-site, Wilmot tp. W. J. W. 24994, Chinese slippers. Canton, China. W. J. W. 24995, Cast of ceremonial implement. Original found on north half of lot 21, con. 14, Blenheim tp. W. J. W. 24996, Pipe bowl. Village-site No. 5, Blenheim tp. W. J. W. 24997, Pipe stem. Coleman village-site, Wilmot tp. W. J. W. 24998, Rude arrowhead. Blenheim tp. W. J. W. 24999, Copper spearhead, found by H. B. Otis and E. Ball, northwest of Clearwater lake, in 1 1-2 feet of water. John R. Boyle, Edmonton, Alta. W. J. W. 25000, Coup stick, with head of quartzite, very elegantly formed. Blood Indians, Manitoba. Mr. James Boyle, London, Ont.

NOTES ON SOME SPECIMENS.

By David Boyle.

The harpoon, or barbed bone spear represented by Fig. 1 (7089) is one of the most gracefully formed in our collection. It is doubly barbed on each side, but, unfortunately, the tip is broken as a result of decay. The barbs in this specimen are short and round, but this condition is also attributable to decay, if not to



Fig. 1, (7089). Half diameter.

injury from other causes. This and another (7088) of which fig. 2 is a cut, were found by Mr. W. G. Long a few miles north of Toronto, where an unusually large quantity of bone tools has been collected.

Salmon and sturgeon of large size were formerly common in the Don and its branches, as well as in all the other streams on the north shore of Lake Ontario, and the probability is that such weapons were employed in the capture of these fish, rather than for use in the chase.

Our collection includes numerous varieties, considering the comparatively small number of specimens (only twenty-two) in our possession. These range from three to eight inches in length, and are made for attachment to handles, either by binding to the side of a shaft, or by insertion in the end of a shaft, with or without a hole for fastening purposes. In the matter of barbs we have one, two, three and five on one or both sides, and these barbs

differ a good deal in form, some being quite sharp and pointing well backwards, and others being somewhat rounded in the axil and less acutely angled.

Fig. 2 is a good example of the larger and coarser kind, found near Toronto. This one, however, is without a hole, which, when it occurs, may be anywhere between the upper and lower thirds of the shafted portion.



Fig. 2, (7088). Half diameter.

It has been thought that the presence of such weapons is suggestive of Eskimo influence, and when we bear in mind the traditinary original abode of the Huron-Iroquois (well down on the north shore of the St. Lawrence) there is nothing at all improbable in such a supposition, but it should be observed that the people in this part of the country do not seem to have possessed any knowledge of the ingenious Eskimo toggle-joint. The answer to this may be that here it was unnecessary to let the implement leave the hand, and that thus any such arrangement was not needful.

Buttons and button-holes were unknown to the Indians. Pins and strings were employed for fastening purposes, and during the winter season these must have been quite numerous to hold together the various articles of dress.

It is not unlikely that some of the bone objects we call awls or needles were employed either wholly so, or as one of their uses.

The one shown by Fig. 3 (8011), differs from anything else of the kind in the museum. The awls or needles are usually made by sharpening bone splinters, or by working an unbroken small bone



Fig. 3, (8011). Full size.

to a point, in either case leaving the opposite end untouched, but here, a splinter has been rubbed down perfectly smooth on both sides before being sharpened, and the head or butt is notched as if meant to be attached to something else by a string. It is too flat to have been used as a perforator, and was probably employed as a clothes fastener.

There is nothing particular about the wing bone here illustrated. Fig. 4 (7153), beyond the fact that it shows different stages of the operation for cutting it into short beads. In some cases the sections are scarcely more than marked off, in others the sawing has been carried nearly all the way round.

This piece is from near Lansing, in York township.

The leg-bone, a diagram of which is shown by Fig. 5, is an excellent example of cutting, and brings out clearly what has been observed in some other specimens (of stone as well as of



Fig. 4. Full size.

bone), namely, that only so much cutting was done as was necessary to weaken the material enough to permit of it being severed by means of a blow, or of a wrench. The partly sawn and partly broken end shows this, and the cut made near the middle does not reach the hollow of the bone.

It is somewhat difficult to believe that pieces of heavy bone like this, and even heavier, were used as beads, and yet we know



Fig. 5. (8602). Half diameter.

how cumbersome were many of the Indian personal adornments—quite as much so as are crowns and other insignia of rank. Besides, such large pieces afforded room for a considerable display of color, whether the beads were individually of one, and the whole string of various hues, or whether each bead bore a dyed pattern, as was suggested by an examination of a specimen from Eldon township. In that case (see page 23, report for 1900) pink tints in diagonal bands are plainly discernible, and since the appearance of that report Mr. George Allison of Waterdown has informed me that a bone head in his possession is similarly marked.

Even when employed as tallies as some of these large bones were, it is probable that this was only a secondary use of some suitable bead in a necklace.

It is seldom that anything like a spoon is found in Ontario, but occasionally there appears a specimen which would seem to have been used as such. This scarcity may be owing to the absence of spoon-food among the aborigines, or to the nature of the substance of which spoons were made—wood or thin pieces of bone, when mussel (unio) shells were not so employed.

In Fig 6 (516) we have a cut of what looks like a spoon made from the scapula of a deer. It was found by Mr. E. C. Waters on a village site in Brantford township, a locality which has yielded many fine specimens of bone, as well as of various other kinds.

The curved line underneath shows the depth of the hollow and the thickness of the bone.

In Fig. 7 (6292) from the collection presented by Mr. F. W. Waugh, and found in Brantford township, we have what appears to have been a tally-bone as well as a bead, for while it is probable that nearly all tally-bones were carried bead-fashion, or otherwise suspended, this one is decorated by means of incised lines in a way that none of our other tally-bones is. On the two



Fig. 6, (516). Half diameter.

opposite and more flattened sides of a large wing-bone is a zig-zag design extending nearly the whole length. On the side shown in the engraving the rude design is more distinct than on the other side where the surface is worn smoother, and the lines have suffered in consequence, if, indeed, there ever has been more than one.

There is always a temptation to regard such a design as indicating an intention to represent a snake, but in this case the lack of anything like a head gives us pause, although there is a



Fig. 7. Full size.

termination that might have been meant for a tail. That the short cross lines were employed as counters, or record marks, is barely open to doubt.

Connected with each end of the irregular line on the other side is a series of five light dots or depressions that may, or may not, mean anything.

Tools of the kind illustrated by Fig. 8 (16921) were used over a wide area in North America, and remained in vogue until within the last few years. It is, indeed, quite probable that some of the Indians in our territories still employ such implements in the

dressing of skins. An excellent example of the tool was brought by Co'onel Delamere from the Northwest, and presented by him



Fig. 8, (23421).
Two-thirds diameter.

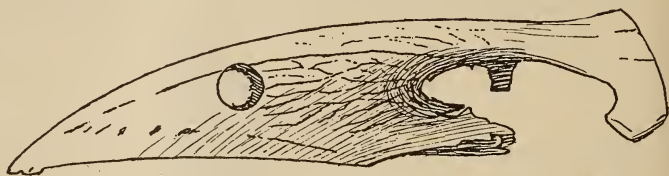


Fig. 9, (23412). Natural size.



Fig. 10, (23261). Full size. Showing cross sections.

to the Museum in 1889. It is evidently of recent make, for fleshy matter is still adherent round the joint at the upper or unworked

end. From the Rev. Dr. John Maclean and Lieut. G. E. Laidlaw other specimens of a similar kind have been received, and it is noticeable that in each case, the Northwest tools are serrated or toothed on the cutting or scraping edge, differing in this way from Ontario specimens, which are all plain on the edge, as in figure 8.

Tools of this kind, too, in Ontario, are usually much lighter (being made from smaller bones) than are those from Manitoba and the Territories, where the buffalo afforded an unlimited supply of excellent material.

If these were used for scraping or dressing the inner sides of skins, as is stated, one can understand that a roughened or toothed edge would add to their efficiency. Only in one case, that of our Ontario specimen, does there appear to have been any attempt made to smooch the upper end of the bone, so that if the handle was grasped by covering the end with the palm there must have been some kind of cushion to protect the hand. The tool here figured was found by Mr. Daniel Quinlan on lot 21, concession 3, Vespra, and came to us through A. F. Hunter, M.A.

To the primitive mind all sorts of odds and ends appealed for purposes of personal decoration or as charms. The most commonplace pebble, or shell, or feather, or other object might be invested with talismanic power. In this respect the old red men were not any worse than white people of our own day, who carry about with them "luck pennies," "rheumatism chestnuts," bits of coal, and the like.

The shaman's outfit, whether in Africa, or in America, consisted of such material, and he himself would be nonplussed if pressed for a reason as to why he chose this or that, to effect cures, or spells, or to secure good fortune. Fig. 9 (23412) was probably regarded as an amulet of some kind, and was thus carried on the person if we may be allowed to form an opinion from the presence of the hole. Perhaps the owner carried about with him the whole raven's head, of which Mr. F. W. Waugh, the finder, has reason to believe this was the upper mandible. In any event there can be no doubt as to the boring of the hole, and this is evidence enough that the object was carried for some purpose. That no similar specimen has, hitherto, turned up may be owing to the perishable nature of such material, if not to lack of observation on the part of searchers.

Fig. 10 (23261) is labeled "Bone arrowhead (ceremonial), Pacific coast, Brit. Col.," but, unfortunately, there is nothing certain about this specimen, for which the museum is indebted to Mr. W. C. Perry of Winnipeg, who procured it with some others of various kinds from a New Westminster lady, who could afford no further information than that it was found "somewhere along the coast," and as "the coast" may mean anywhere between Alaska and California, it is impossible to say just where this remarkable specimen originated.

It has been labeled "ceremonial" because it would seem to have been for ornament, rather than for use. The material, which may be ivory and not bone, has been worked with far more care than one would expect to find on a common arrow, as may be seen by examining the illustration. The slot on each side of the neck for insertion in the shaft is carefully made, and the hole would seem to have been for receiving some kind of rivet to fasten the arrow to the shaft in addition to cord, or sinew bindings, if we may regard the notches on the edges of the neck as having any connection with the latter method of fastening.

The criss-cross markings on the blade may or may not have had a meaning. Both sides are marked similarly.

Should any reader be able to supply information respecting specimens of the kind the curator will be greatly obliged.

The engravings of the two cranial specimens shown here are from drawings supplied by Mr. Alfred Stirton, the gentleman who found them in Eastern Ontario.

Of four similar objects in the museum two are devoid of holes, one has three arranged triangularly round the centre, and about an inch and a quarter apart, the other has seven holes, the

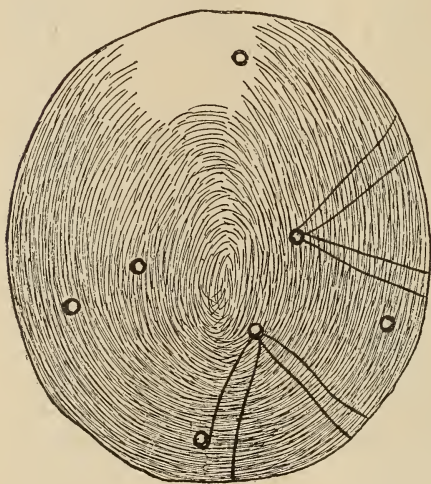


Fig. 11.

(A little over half diameter.)

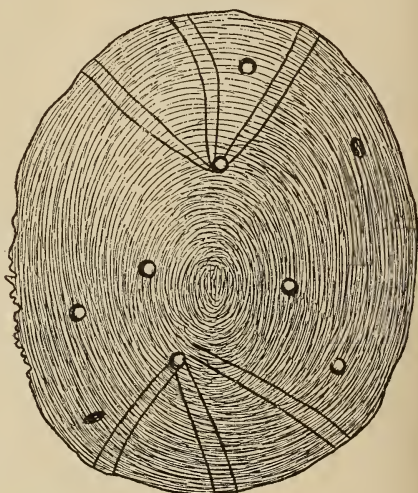


Fig. 12.

arrangement of which corresponds with that seen in figure 11. The two without perforation may have been used as cups, or they may be unfinished articles intended to be like the others when completed, but in no case are there any incised lines on the specimens in our cases. What such lines mean, if they mean any thing, on the convex sides of these eastern Ontario objects we may never know.

Many superstitious beliefs and practices exist among primitive peoples in connection with human skulls, or portions of them,

which are regarded as possessing some sort of talismanic influence. Two entire specimens (21387, 21388) in our possession from the farm of Mr. Harry W. Mayor, Innisfil, Simcoe County, are perforated, one with three holes and one with one. Diagrams of these were given on p. 26 in our report for 1899. As these holes were evidently bored after death it is tolerably certain that some sort of mysterious influence was supposed to be connected with skulls thus treated.

However this may have been, the specimens figured here are interesting as having appeared so far east in the province, as well as on account of the lines that have been incised on them.

The evolution of the tobacco pipe has been discussed by many writers, most of whom trace it to a simple straight tube of reed, or of cane, then of stone and clay, followed by plain curved forms, and latterly of various ornamental patterns, based mainly on angles and curves. However, this may be, not a single example of a straight tubular clay pipe has found its way to



Fig. 13, (23198). Full size.

the museum, and in our collection of fully two hundred and fifty stone pipes there are only two specimens from Ontario which are suggestive of this form. One was found on Lake Miora, in Hastings County, and the other is from Lombardy in Leeds County, about seventy-five miles farther east. In both pipes there is a slight bend.*

The specimen figured here is a true tubular pipe, connected with which is what may be called a handle, a very useful appendage to such a short and easily heated piece of soapstone as this is. It was found in Oxford township, Oxford county, but the material would indicate an origin quite as far eastwards as that of the pipes from Hastings and Leeds.

Fig. 13 formed part of a small collection made by the late Mr. J. F. McDonald, barrister, Ingersoll. Unfortunately, he kept no record of his finds or of his acquirements, so that the exact locality of this pipe is not known. In any event, the pipe here referred to is unique, as far as our collection is concerned.

* For an illustration of the Lake Miora pipe, see Report for —, page .

The methods by means of which pieces of rough stone and other substances were shaped must always prove interesting to students of mechanical bent, and as among all the stone objects found in this country, there is none that required more skill, or a greater variety of manipulation to produce than that known as the "banner stone" or "butterfly stone," the use of which is unknown, there are, consequently no more instructive objects from this point of view. That articles of this kind were most commonly made of Huronian slate we all know, but comparatively easy as it was to work such material, considerable care must have been required in some of the operations, owing to the fragile nature of the stone. After selecting a piece of slate suitable for this purpose, the workman's first effort was to bring it into shape roughly, by flaking or chipping, after which the higher portions were reduced by means of pecking with flints, or other silicious stones. The still rough surface was next smoothed by rubbing

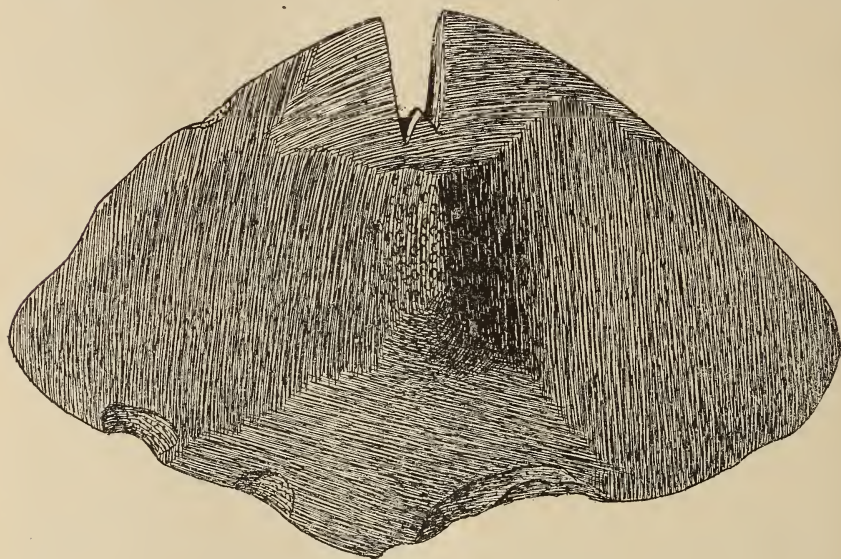


Fig. 14, (23403). Two-thirds diameter; full size.

it with some gritty material, probably sandstone. Evidence of all these operations may be observed on the specimen represented by figure 14 flaking on the lower edge, pecking on the bosses (ultimately to be bored lengthwise to meet the notch)—and the lines of abrasion consequent on the rubbing, or, as we may call it, filing. In addition to the operations mentioned, we have in this specimen an example of sawing, for the notch on one edge has been thus produced, by means of two cuts. The probable intention was to form another notch on the opposite edge, and finally to connect the two by means of a hole bored through the remaining thick portion. The only operations not exemplified on this specimen are those of boring, and of the final polishing, whereby every vestige of friction would have been removed.

The instructive specimen suggesting these remarks was found on the farm of Mr. James Thompson, West Nissouri, Middlesex County, and is the gift of Mr. L. D. Brown, Granthurst.

Fig. 15 (23208). Simple as is the appearance of the tool here figured, it presents a very uncommon feature on the lower edge, which is somewhat squarely formed, with a surface one-fourth of an inch wide, and slightly curved lengthwise, that is, from side to side of the stone. The specimen reminds one of the tool used by shoemakers to smooth the edges of boot and shoe soles.

That the present form is the result of degradation from a

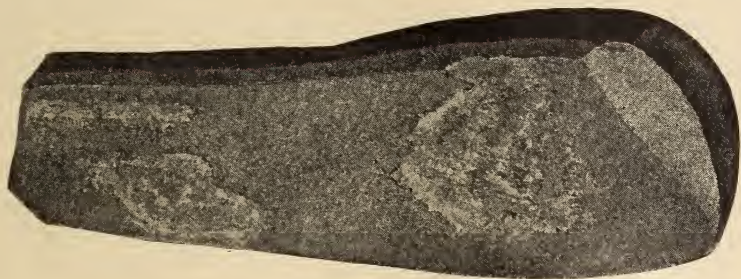


Fig. 15, (23208). Full size.

celt is quite evident, and as it is the only object of the kind that has come into our hands it possesses a little more than common interest.

It formed part of a small collection made by the late Jas. F. McDonald, of Ingersoll, in Oxford Township, Oxford County.

The imperfect specimen of which an illustration is shown by figure 16 is of a very unusual description. Mechanical combinations of galena and baryta are not uncommon, but when these



Fig. 16.

Full size.

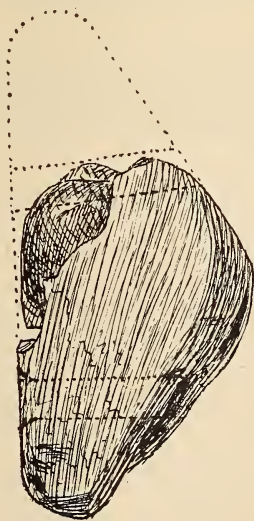


Fig. 17.

occur the impression one receives is that the process by means of which the two have been brought together has been an extremely long and slow one. This object, however, would seem to

show that in suitable conditions a coating of the heavy spar may be deposited within a comparatively brief period, for it is almost impossible to doubt that the galena body of figure 16 was formed before the coating of from a sixteenth to an eighth of an inch of spar was deposited on it. Wherever the coating is broken, the galena is exposed. The still complete perforation is lined with spar, but the one at the broken end is only partly so.

The inference is that an attractive bit of galena was first shaped into one of the perforated, boat-like forms (examples of which, though not at all common, are sometimes found of Huronian slate), and was afterwards lost—we can scarcely imagine purposely placed—where baryta eventually encrusted it. The dotted line on the side view (Fig 17) shows what appears to have been the outline of the object before it was broken.

The curious specimen here referred to was found in the Township of Woodhouse, Norfolk County, and came to the Museum from Capt. J. G. Spain.

Horn pins of various dimensions—from two to four inches long, and from three-eighths to seven-eighths of an inch in diameter—all approximately cylindrical, are often found on village-

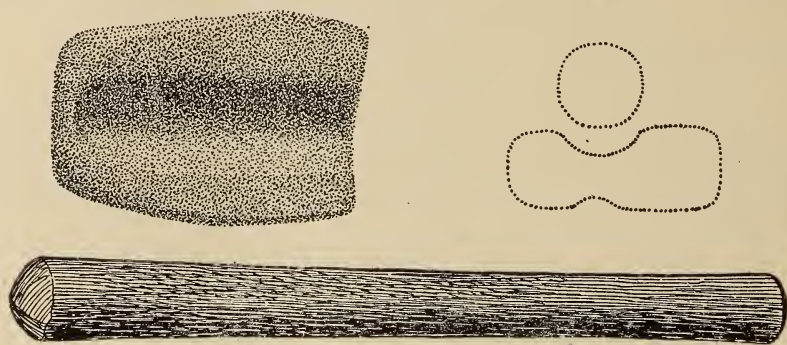


Fig. 18. Full size.

sites, and their use remains problematical, notwithstanding the simplicity of their construction. In Brantford Township, Mr. Waugh collected several of these, and in one place he picked up the stone specimen figured at 18, which seems to have been used in the shaping of such horn pins. It is of sandstone, and hollowed on both sides. That it was a rubbing stone of some kind, or, as we might say, a file, there is little doubt. One of the pins in question is figured here, as is also a cross section of the stone, showing how the one may have been used to shape the other.

OSSUARY AT BRADFORD.

West Gwillimbury is the most easterly of three townships forming the southern portion of the County of Simcoe, the old-time abiding place of the Hurons. The Holland River, taking a north by easterly course across the south end of the township before it reaches Lake Simcoe, flows through a large marsh, the

length of which is upwards of twenty miles. On the west side of this marsh, and on the upland, about a mile from the river, is the village of Bradford. Here, last April, in the course of digging a foundation for a house, the workmen came upon a small ossuary. The news soon spread that human bones had been exposed, and next day, Sunday, there were nearly two hundred people, jostling one another with spades and shovels, eager to root up the grave! No doubt the people entertained the common belief that every such place is a depository of what so many call "curios," but failing to secure a harvest of such material, they appropriated all the skulls and many of the other large bones.

The situation is on lot 14, David street, the property of Mr. John Stibbs, near the crown of a low hill, probably not more than sixty or eighty feet higher than the marsh, and on the eastern slope; the hill itself being at the north end of the village.

The pit differed in its proportions from most others that have been examined, its surface diameter being not more than nine feet, while its depth was fully five. As is usual where a scramble occurs at the opening of such places, very little reliance can be placed on statements made respecting the number of individuals whose bones were buried, but the various estimates warrant the supposition that there were not more than seventy or seventy-five.

Mr. H. S. Broughton, postmaster of the village, informed me that he saw the skulls of at least five children thrown out. This is quite uncommon in connection with ossuary burial, whatever the reason may be. Were the bones of immature boys and girls not thought worthy of sepulchral honor? or, if thus buried, did they decay more rapidly, being less solid than those of older people? In some cases it would appear that skulls were found in groups of three and four—one statement was to the effect that five or six were placed in a row, but apart from this no one observed anything like order in the disposition of the bones.

An article in the Bradford "Witness" stated at the time this ossuary was discovered, that "Two or three other pits like this have been found in West Gwillimbury in former years," but Mr. Broughton, on the other hand, says that during a residence of thirty-six years in the township he has not heard of any such event. Both statements may be correct.

About twenty-five skulls were taken from the grave. I saw several of them in the hands of villagers, and in most cases the condition of them was good. One, however, would seem to have been much longer interred than the rest; perhaps it was in a part of the ossuary where the conditions for preservation were not so good as elsewhere.

Mr. Stibbs, the owner of the property, expressed his desire that all the skulls should be placed in the Provincial Museum, and he kindly had an advertisement inserted in the local paper, asking for a return of the crania to him for this purpose, but up to the present moment not one of these has reached us, and the probability is that they still form ghastly decorations on the shelves of workshops, there to remain as "curios," or, until they can be

disposed of for "a consideration." A bank clerk, who owned one, lightly informed me that it was his intention to have the top of his sawn off and thus have the skull made into an inkstand!

OSSUARY IN WARWICK.

In the Wafford "Guide-Advance" for Aug. 8th, appeared a letter from Dr. J. E. Brown, with reference to "About Twenty Human Skeletons Unearthed in a Trench in Warwick." These were found "about two feet below the surface, in soft, sandy soil," three miles south of Arkona.

Dr. Brown says:—"Skulls and bones were removed until about a dozen and a half were thrown out. With the skulls were a great many large bones of the body.

"I was present when the last of them was dug out, and I found that there were very few of the small bones, such as the bones of the hands, feet, ribs and vertebrae. There was no trace of anything else in the trench, except part of a small broken kettle. The fact is, that if the entire bodies had been buried, all the bones would have remained intact. There were but few of the ribs, vertebrae, bones of the hands and feet, and they were in as good a state of preservation as some of the larger ones, so that we are led to conclude that the missing ones could not have been buried. Another strong reason for believing that the entire bodies were not buried is that the bones were not placed in any kind of order when found.

"Again, the trench in which they were buried was not more than four or five feet in length. The bones were in a very advanced state of decay, so that when exposed to the air for a day or two the most of them would break, unless handled with care.

"Some of the bones showed that the skeletons must have been those of very large men, while others were smaller, and others again were the bones of small children. One of the most interesting features was that on the top of one of the skulls were six holes, three on each side, and on another were three holes. These holes were placed about an inch apart, and were about the size of a lead pencil on the outside of the skull, and narrowed down to the size of a slate pencil on the inside. They appeared to have been put there by some boring instrument. From the shape of the skulls, with the high cheek bones, solid jaws, perfect teeth, reclining forehead, and the comparative small size, I am inclined to think that they were those of Indians, and, from the state of disintegration of the bones, may have been those of men of the eighteenth century."

This grave would seem to have been a small ossuary, although referred to as a trench, and this view is confirmed by the facts that there was no orderly arrangement of the bones, and that many of the small ones were missing. The situation of this little communal grave so far west is worthy of note, and it is especially interesting to know that in it was found an artificially perforated skull. Two skulls similarly treated are now in the museum, from the Mayor farm, Township of Innisfil, Simcoe County, one having one hole and the other three.

It is extremely desirable that specimens of this kind should be placed where comparisons may be made, and where, in a general way, they may be of most use.

OSSUARY AT ORILLIA.

Of another discovery, the Orillia "Packet," Oct. 2nd, says:--

"For years Upper Mary street was a happy hunting ground for the relic collector. In the sixties and seventies, the boys of Orillia used to make quite a business of digging up pots and tomahawks and skulls for the curious. Then when that part of the town came to be built up great numbers of skeletons were turned out in excavating cellars, building streets, etc. Of late there has been a lull; but last week there were turned out thirteen skeletons while levelling up a lot on Mary street. The remains were only a foot or two under the surface. Ten of the skeletons were together, the skulls lying within a space of two square yards. Several were at a little distance. Most of the remains had been re-interred when a "Packet" reporter visited the spot on Friday, but he was shown a skull which was almost complete, and had a full set of good teeth, with one or two exceptions near the back of the mouth. It was the head apparently of a man advanced in years, and in the crown was a round hole, over an inch in diameter, probably indicating the manner of death—a blow from a tomahawk, or other weapon. The reporter was told that one of the other skeletons was lying on its side, with the arm supporting the head, apparently buried as the man had fallen, or had died from wounds. Probably thirty skeletons in all have been turned up in the lot—a piece of ground 50x105 feet. Formerly some beads and tomahawks were found, but with the last lot there were no such relics."

EFFIGY PIPES IN STONE.

By George E. Laidlaw.

The object of the writer in this article is not so much to theorize or speculate on various recurrent forms of animal pipe sculpture in Ontario, but rather to give minute descriptions of certain known types and to compare them with similar specimens from the Huron-Iroquois territory south of the lakes.

These effigy pipes may have had a totemic significance, especially when occurring in places occupied by the clan, whose totemic animal the pipes indicate; for instance, a bear pipe found in a locality known to be inhabited, used or occupied by the bear clan, might be called a bear totem-pipe. These effigy pipes are not sporadic, but are indigenous to Huron-Iroquois territory, and are probably of a later date than is generally supposed. I place them

about the time of the advent of the white man in the St. Lawrence basin, and from that on. One coming under my notice was found in an ashbed, showing traces of contact with white men, and its angles and lines seem sharp and decisive enough to have been made with European tools. I do not think that these pipes were at all ceremonial or made for a ceremonial purpose, but no doubt they may have been used on ceremonial occasions. I rather think that they were the results of individual enterprise, and of an innate desire to represent some mammal or bird, but not necessarily one's totem, and that they formed a "vogue" or fashion about a particular period. Not placing these pipes earlier than the early Huron period, I do not hold with certain United States writers on some points, as regards their reasons for believing in the extreme modernity of these and other objects, while at the same time it is not reasonable to assign extreme age to specimens of which we know next to nothing, and where an unrecognized one, or one of rare occurrence, or some highly finished object is discovered it is immediately dubbed "ceremonial." I do not believe that the Indian had any especially "ceremonial" objects, as we employ the word ceremonial, but that any object might become "ceremonial," or invested with the property of "medicine," with them, on account of environment and association. With modern western Indians, a pipe-stem highly decorated, that had been used in a treaty, or in connection with some tribal event, became "medicine," and was kept as such, and used repeatedly, while the pipe bowl might be only a common trader's "clay." These finished forms of pipe sculpture were only the results of individual skill and taste, and an artisan could produce a number of similar specimens, given unlimited time.

The use of slots, a distinguished feature in this class, is somewhat problematical, but we may confidently assume that they were for the reception of some foreign substance, after the manner of inlaying, which could also have been imbedded in the eye-holes and colored to suit—gum of some sort would be a suitable material, and then again hard substances would be used, after the manner of the inlaid metal on the Ojibwa stone pipes of Lake Superior and the inlaid shell and ivory of the British Columbia stone and horn-ware. Rev. Dr. Beauchamp figures a human head pipe with eyes of inlaid bones in his Bulletin on polished stone, New York State Museum, Fig. 97, and in all probability the inlaid metal pipes of Lake Superior and the north-west are a survival of this form of ornamentation. The general character of the bowl is that the orifice is at the shoulders, and the stem hole enters through the back, though occasionally through the front, which latter indicates a slightly older form, according to Beauchamp, who has it in his bulletin on earthenware that "the oldest pipes found in New York are of stone, the Iroquois clay pipes succeeding these early examples, and being followed by those of red pipe-stone, and some of the fine-grained slates," to which we may add soapstone or steatite, and the statement may be made that none of these early forms embrace the ornamented bird-mammal and human-figure pipes referred to in this paper.

Capt. John Smith, in discussing the Susquehanna Indians, states that the tobacco pipes were prettily carved with a bird, deer, or bear, or some such device. On his pipe the Indian exercised his highest taste and skill, nor did he wish to lose his own enjoyment of its beauty. Early clay pipes had the finest features within the smoker's sight, the face on the bowl being usually turned towards him. Later examples often reversed this feature, both in clay and stone (p. 114.) "As a rule, stone pipes were earlier than clay, but not invariably. A primitive feature appears in most cases, that of the face towards the smoker (p. 115), and both clay and stone pipes are rare in New Jersey, and these are inferior to those of New York, where so many of the finest examples of both are found. Equally fine are those of Canada, where they are common. At first the Iroquois made clay pipes only, but afterwards used European tools on those of stone. The early and recent pipes are distinguishable, as a rule." (p. 44, Bulletin on Polished Stone.) These effigy pipes possess to a large extent the main distinguishing features of the birds and mammals represented, and constitute a totally distinct class of pipe sculpture, peculiar to Huron-Iroquois territory, not even remotely resembling the extensive class of Mound Builders' platform effigy pipes, and all of them come from Huron-Iroquois territory in Ontario, including the country of the Neutrals. It is rather difficult to distinguish what clan localities these pipes can be relegated to; for instance, a bear and an owl pipe are found in the same site, and as there was no raven clan amongst the Hurons, to whom can be apportioned the two raven pipes? Thus, these pipes are probably the results of individual design, not having any particular relationship to totems.

Though the Jesuits mention no turtle clan amongst the Huron-Iroquois, later writers do so, notably, Wm. E. Connelley. These pipes are usually surface finds, not being associated with sites or graves, except in rare cases—(the owl pipe of Tiny is from an ash-bed)—or with mounds. McGuire thinks that the suspensory holes are a minor distinguishing feature of pipes from a "deep snow" country, and refer to the animal pipes of this variety as the "jumping jack" type! (American Aboriginal Pipes.)

Peter Kalm, in discoursing upon pipes, states that their blackened color is produced by covering them with grease and then holding them over a fire, by which they get the desired hue, and this is increased by use. Otis Mason gives practically the same for coloring earthenware.

All measurements in this article are in inches, and the reports referred to are the Annual Reports of the Ontario Provincial Museum, except when otherwise stated. All the pipes figured herein are from Ontario, except the Pennsylvania panther pipe. When no date is given in regard to the finding of a pipe, it is because it cannot be ascertained. Thanks must be tendered to Mr. A. F. Hunter of Barrie for his assistance in photographing specimens, and to Messrs. G. McLean of Collingwood and G. Allison of Waterdown for photographs, drawings and data.

Bear Pipe, Bolsover.—Fig. 84, p. 36, vol. 4, Ontario Archaeological Report, 1890.

Found by a Mr. Angus McIntyre, near Bolsover, Post Office Eldon, County of North Victoria, on the north bank of the Talbot River, in Mara Township, about 1880. Material—soapstone, with highly polished and black stained surface. Perpendicular length, 3 1-2 inches; greatest width, 2 1-16; breadth across shoulders, 1 1-8; depth of body, 1 1-4; diameter of bowl, 11-16; diameter of stem hole, 5-16; depth of bowl, 1 1-4, which is rather excavated than bored. Stem hole conically bored, edge showing very neat boring, as if by a metallic tool. There is a broad band cut around three sides of the neck, as if for inlaying purposes.* Legs are separate and are represented as clasping a branch of a tree (frontal bar). Hind legs inversed or conventionalized, to corre-

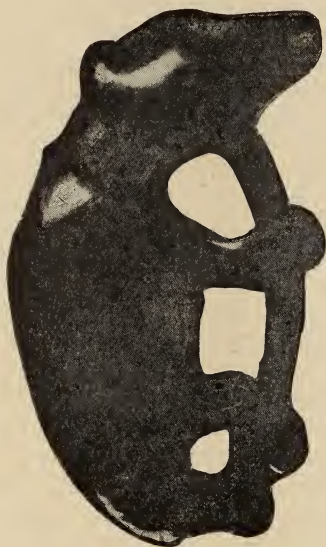


Fig. 19. (Bear Pipe.)



Fig. 20. (Panther Pipe.)

spond with front legs. Hinder part of body is produced and joined to frontal bar, with a longitudinal perforation just at the junction. Marks resembling those of a file are visible in several places. The head is remarkably well executed and large in comparison to the size of the body, being 1 9-16 by 15-16 inches. The ears are represented by two knobs and eyes by holes. The mouth is well defined. The frontal bar joins the head about the base of the jaws. The claws are slightly represented. The outline of the back is more semi-circular than is usual in these pipes.

Panther Pipe, Carden Township.—Fig. 85, p. 36, 4th Ontario Archaeological Report, 1890. Was found by G. Fox a number of years ago at Dalrymple P.O., east side of Mud Lake, Carden Township, Victoria County. The material is steatite of a mottled greenish gray color. Length, 4 inches; greatest breadth 2 5-16 inches; width across shoulders, 1 inch; depth of body, 1 1-8 inches; diameter of bowl, 11-16 inch; upper stem hole, 3-8 inch; lower,

* This depression round the neck would seem to have been the work of another hand than that of the one that made the pipe. D.B.

9-16 inch, both of which enter the bowl, and either would have to be "plugged" if the other was used. Bowl and two stem holes (not an unfrequent feature in stone pipes from this section) are conically bored. Legs, solid in pairs, and appear to be clasping a branch frontal bar, which, may be, the tail produced. This joins the head at the base of the jaws. The claws are represented on the fore paws. The apertures in front of the fore legs and in rear of the hind legs have been made by boring with diameters of about 3-8 inches, as far as can be determined. The head is in a fairly proportioned size, 1 3-8 by 13-16 inches; forehead flat, ears slightly denoted. Eyes bored clean through with a perforation of 1-4 inch diameter. The mouth is represented by a slot cut on each side of the muzzle. A slot is cut on each side of the neck, and one long narrow slot is cut on the front of the frontal bar, between the fore and hind feet. The jaws are short and heavy. The surface of the pipe is polished, but shows much wear by use.



Fig. 21. (Wolf Pipe.)



Fig. 22. (Monkey Pipe.)

A similar pipe, though carved to represent a lynx, was found in the same vicinity about the same time. All traces of this pipe have been lost.

Wolf Pipe, Whitby Township.—Was found in 1872 on Mr. Chatterson's farm, Township of Whitby, Ont. Material, greenish grey soapstone, polished. Perpendicular length, 3 3-16 inches; breadth, 13-16 inch; thickness, 1 1-4 inches; diameter of bowl across orifice, 9-16 inch, and of stem hole, 3-8 inch, both being conically bored; depth of bowl, 1 1-2 inches. There is a suspensory hole behind and three slight parallel cuts on the right side of the belly. The head is more erect than is usual; long and narrow, with deep jaws. The eyes are small holes, set close together, mouth fairly well defined, under side of lower jaw hollowed. Ears small; expression of face, sinister. There is a small perforation on each

side of the head. The pipe is long and narrow. Was obtained from Mr. G. Doolittle, of Victoria Road, in 1897, who stated that it was perfect when found, but since has had the legs and frontal bar broken off. The bar did not extend to the chin.

Monkey Pipe, Milton, Ont.—Fig. 28, p. 29, First Archaeological Report, 1887. Found by Findlay McCallum on his farm near Milton, County of Halton, Ontario. Resembles a monkey very strongly, but from length of nose may be intended for an opossum, which view is further heightened by the frontal bar being curved back, and looking like a long tail, upon the animal's shoulder on each side of the body. One of the principal features of this pipe is the number of pits, or slots, upon its surface, as follows: One on each side of the body, five large ones, six on front of the frontal bar, five smaller one across the top of the head, two smaller ones in the depression between the not fully developed ears, and a

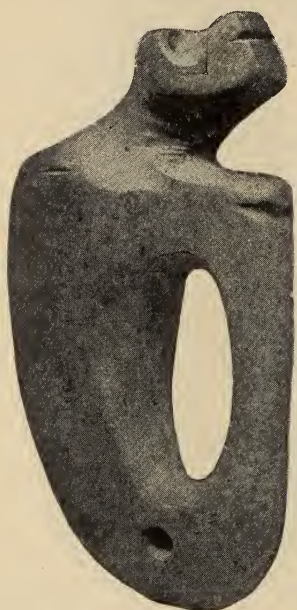


Fig. 23. (Wolverine Pipe.)



Fig. 24. (Animal Pipe. Ryleston.)

large, shallow one on the back above the stem hole, one on each side of the frontal bar, total, twenty-six. Perpendicular length, 3 9-16 inches; width across shoulders, 7-8 inch; depth of body, 1 1-8 inches; distance from outside of frontal bar to back, 2 inches; length and width of head, 1 1-2 inches and 15-16 inch respectively, which is very large in proportion to the body, a much larger proportion than in other pipes of the same class. Diameter of the orifice of the bowl and stem hole are the same, 9-16 inch, both conically bored and evidently with the same drill. Slight incisions representing claws on the frontal bar, legs solid in pairs, eyes deeply and conically bored, nostrils marked by two small holes, not occurring in similar pipes. Lower jaw well developed underneath. Material, greenish gray soapstone; the surface of the pipe is weather worn. This pipe may be intrusive from the southern

latitudes, or it may be a representation of some animal seen by the maker when he was on a trip south.

Wolverine Pipe, Innisfil.—This pipe was found by H. Mayor, Esq., on his farm in Innisfil Township, Simcoe County, some eight or ten years ago. Material, a dark grey, or black, coarse-grained slate. The pipe is fully shaped, but not polished. Design, bold, resembling a wolverine more than any other animal, with its short broad head and heavy jaws. Oval opening between body and frontal bar has diameters 1 1-2 and 3-4 inches, no legs or feet denoted. Perpendicular length, 4 1-8 inches; greatest breadth across shoulders, 1 1-8 inches; thickness across body at stem hole, 1 1-4 inches; greatest distance between outside of frontal bar and back, 2 3-8 inches; diameter of bowl orifice, 1-2 inch, and stem hole, 5-16 inch; depth of bowl, 1 1-2 inches. Both bowl and stem hole are very neatly conically bored. Perforation at the base, or below oval opening, bored from each side, being twice attempted on left side.

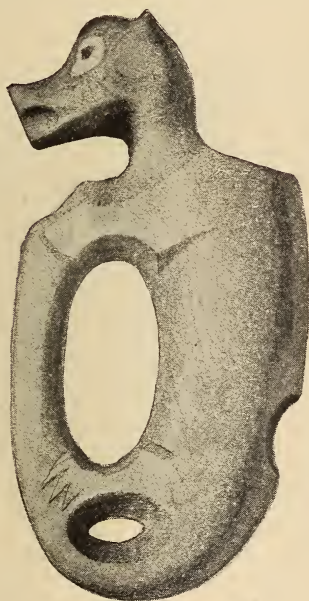


Fig. 25. (Panther Pipe. Pennsylvania.)



Fig. 26. (Dog Pipe.)

Frontal bar has a deep cross nick near top, from which to top is a slight vertical cut. This may be a preliminary to the making of conventionalized front feet. The head is depressed between two small ears; the eyes are not marked. Front of mouth defined by a nick. Pipe has a wedge-shaped appearance. Marks of sawing or cutting still observable around the neck and head. Frontal bar may be a conventionalized tail. Edge of stem hole shows very neat boring, as if by a metallic tool.

Panther Pipe, Pennsylvania.—Is now in the possession of Isaac Yohe, jr., and loaned to the Carnegie Museum, Pittsburg. Was found in a mound, associated with celts, arrow-points and spear heads, near Shire Oaks, Allegheny County, Pa. Though not an Ontario pipe, is here given for comparison's sake, as it is from

Huron-Iroquois territory. Length, about 5 inches; depth from back to outside of frontal projection, 2 1-2 inches. We are indebted to Mr. W. J. Holland of the Carnegie Museum for the drawing and description. He says that "the pipe is made out of blackish or dark grey slate (Huronian), and the laminae of stratification on the slate show as in the drawing. The pupils of the eyes are conical projections from the body of the stone, from which the pipe is carved (note the difference from eyes of other pipes). The space around them is filled in with white clay, being depressed at most about 1-16 inch below the surrounding surfaces. It has been filled out, I judge, from appearances, by the finder. I judge Indians that frequented the upper waters of the Ohio belong to this stock for the most part." The Archeologist, No. 5, May, 1895, p. 176, notes this pipe and gives a short description.

Animal (?) Pipe, Ryleston, Ont.—Fig. 8, p. 18, Report 1892. It is not very clear what the pipe represents. It may be a purely



Fig. 27. (Eagle Pipe.)



Fig. 28. (Laxton Owl Pipe.)

bird-pipe of the duck type (Broad Bill namely), but the large eyes militate against this supposition. The pipe is evidently finished, and may just as well be called a nondescript composite pipe, composed of a bird's body and a slightly grotesque mammal's head. I would rather term it a purely composite pipe to distinguish it from a nondescript pipe. I am not aware of any grotesque, or suggestive stone pipes from this portion of Ontario and the Huron territory, so I think that these pipes are later than the sometimes grotesque, but not obscene, clay pipes of the Hurons and kindred tribes. Perpendicular length, 3 inches; breadth, 1 inch; thickness, 1 1-8 inches; distance from back to beak, 2 1-5 inches; diameter of bowl orifice, 2-16 inch, and of stem hole, 1-2 inch; depth of bowl, 15-16 inch, both being conically bored. There are four vertical cuts, representing claws, on frontal projection, which is bored

from each side, and has a slight cut from hole to claws on each side and one underneath at end of claws. Depressed face, large, shallow pit eyes, depression on top of head. Eyebrows marked by two cuts, mouth open. Nose or end of beak blunt. Material, brownish slate, slightly clouded. Northumberland County, Ont.

Dog Pipe, Nottawasaga.—Material, grey soapstone, polished. Locality, Township of Nottawasaga, about six miles south of Collingwood; was found among the roots of a large pine stump. Length, 3 inches; width across shoulder, 1 inch; depth from front to back, 1 1-4 inches; diameter of bowl, 3-4 inch, and of stem hole, 1-2 inch, both being conically bored. There are thirteen tally marks from the middle of the back to the base, which is suspensorily perforated. Though this animal pipe has the bowl in the same position as others under discussion, it lacks the frontal bar and legs, and the stem hole comes out in front, making the animal face the smoker, which, according to Dr. Beauchamp, is characteristic of the earliest clay pipes in New York State.

Though this has been called a dog pipe, there is nothing very distinctive about the head to denote it as a dog. It might represent another animal with a blunter head than those of the original Indian dogs, which were of a sharp-nosed kind. This pipe might represent a seal seen in the St. Lawrence River by Hurons on a trading trip to Hochelaga. (See fig. 26.)

Bird Pipes.—For a comparison of Ontario bird-pipes with those from south of the border, see Bulletin on Polished Stone (Beauchamp), which gives two figures, one of a wood-pecker and the other of a partridge, Figs. 103, 107. Both of these belong to our type, and present the usual main features, even to slots and wing markings. On p. 217, Fig. 4, of Moorehead's Prehistoric Implements is depicted an owl pipe possessing some characteristics and diagnostic features as Ontario owl pipes, with a little lesser frontal projection, from Waynesburg, Pennsylvania.

McGuire gives two figures of bird-pipes of this type from the same State, one of which may represent an eagle or hawk. The other is very similar, but unfortunately has its beak broken off. Of the first mentioned, it bears a great resemblance in shape of body to the Tiny owl pipes. McGuire mentions several others from Huron-Iroquois territory south of the line. (American Aboriginal Pipes.) And the same style of work as the raven pipes appears in some Ohio bird-pipes, and one from New York is figured by Dr. Rau. Compare also this type with the bird platform type, Figs. 14 and 15. Report of Bureau of Ethnology, 1883-85. In the latter it is the posture of the bird that is referred to.

Eagle Pipe, Midland, Ont.—Report 1890, p. 37, Fig. 86. Found previous to 1890, taken from a grave at Midland City, Georgian Bay, Ont. (north of Huron territory) by Mr. Frank Roos. Material, a greyish green Huronian slate, with darker veins. It is a splendid piece of aboriginal workmanship, well finished and executed; smoothed but not polished; head, beak and feet (talons) well formed; outline of wings defined; suspension hole through tip of tail: feet separated, four talons to each (only case of separation occurring as yet in bird-pipes). Transverse holes through

feet; eyes are small, circular depressions. Dimensions, length, 5 inches; width, 1 1-4 inches; thickness back to front, 1 11-16 inches; distance from point of beak to back of head, 1 3-16 inches; diameter of bowl, 13-16 inches, and of stem hole, 7-16 inches, both bored with conical drills. Depth of bowl, 1 5-8 inches, bottom of which inclines to front of pipe. No feather marks on tail or wings.

Owl Pipe, Laxton Township.—Ontario Archaeological Report 1899, p. 49. Was found by G. Staples, Norland P.O., on his farm, lot 12, con. 8, Laxton Township (village-site 30).

This is a large rough pipe of coarse soapstone, of a grey color, showing many signs of use and wear, besides several bruises from the plow which turned it up. The features are well defined. treatment of eyes, talons, tail and wings being remarkably acute and strong. The eyes being bored by a tubular drill, and then centred for pupils by a pointed drill of lesser size. The beak is not well defined, but has a rather large open mouth. The wings are outlined and contain a number of diagonal cross cuts, diminishing in length to the tips. Another deep cut on each side runs diagonally in opposite directions, extending from wing to rear of claws. The wings behind are separated from each other by a longitudinal cut or groove from edge of bowl to stem hole. The frontal projection is unusually large, with a large transverse perforation 5-16 inch in diameter, with an upward perforation from bottom of frontal projection meeting it. The claws (feet) are defined by three cuts on top of frontal projection and longitudinal cut in front met by a pair of light horizontal cuts on each side.

The head is pyramidal, denoting either the great grey owl, or the barred owl, both inhabiting this region at intervals. The tail is represented by five long cuts on the outside and four underneath, with four nicks at the end. On the right hand side of the tail there are nine slight horizontal marks, and on the left side one, meeting the outside edge. Anus denoted. Dimensions—perpendicular length, 4 1-4 inches; greatest distance from beak to shoulders, 2 5-16 inches; width across shoulders, 1 1-4 inches; back to front, 1 1-2 inches; diameter of bowl and stem hole the same, 13-16 inch, conically drilled, the bowl being gouged out a bit afterwards, probably with a metal tool, tips of wings meeting at an angle above tail. Depth of bowl, 1 1-4 inches.

It has been suggested that this is a "parrot" pipe, rather than one representing an owl, and that it may have found its way here from the south.

Owl Pipe, Southwold.—Was found on the farm of the late Chester Henderson, Southwold, near St. Thomas. Dimensions—length, 3 3-4 inches; back to front, 1 1-8 inches; width across breast, 1 9-16 inches. Long, narrow bowl, 5-8 by 1 5-8 inches (measured from outside rim to top of stem hole in this, the eagle, and the Laxton owl pipe). Material, light drab slate, well finished, but presenting some features which have probably been added to it at a later period, namely, a large tau on breast, overlying some faint diagonal feather marks, and a similar tau with curved top on back under bowl hole. The two slight tufts represent an eared, or horned owl. Eyes bored by tubular drill, leaving raised centres. Beak and mouth well defined; shoulders sloping

and shown by a series of five curved lines. The wings marked by a deep multicurved transverse line across back, with a series of longitudinal cuts down the back, terminated by one cross cut above stem-hole, and one on each side of it lower down. Tips of wings rounded above tail and marked with a series of twelve slight edge nicks; slot cut in at butt of each wing. Tail divided by a slot, with a deep nick on each side. The large frontal projection has a large transverse hole, 3-8 inch in diameter, bored from each side with a conical drill. The claws are denoted by five cuts on top and two triangular spaces underneath on outside of frontal projection. This is a very neat, well-finished pipe, of aboriginal workmanship no doubt, but several markings added to it afterwards. On left side of top mandible is a small cross; on



Fig. 29.

(Owl Pipe. Southwold.)



Fig. 30.

the other a slight curve. Then, the outlines of taus on the breast and back, if allowed, proclaim it to be modern. The tau on the back fits into the centre of the upward curve of the shoulder line, and is of the same appearance as the slots, and may have been used for the same purpose, viz., inlaying. Orifice of the stem-hole damaged.

Owl Pipe, Tiny Township.—Fig. 34, p. 103, Ontario Archaeological Report, 1901. Found on a village-site, lot 18, con. 15, Tiny Township (Huronian). This is a splendid specimen of pipe sculpture, equalling any that have come under the writer's notice as yet. Material, a dark, greenish grey striped slate, the pipe being carved in such a manner that the colorings are in longitudinal strips down each side, with the curvilinear shadings on front and back, giving a very pleasing effect. The transverse section is square, with rounded corners. Perpendicular length, 4 1-8 inches; greatest width from side to side across breast, 1 3-8 inches, and

the greatest depth, 1 5-16 inches. The body gradually tapers to a short tail. The sides are plain, with the exception of a diagonal cut from top of breast on right side to lower part of the back, probably conventionalizing a wing. The treatment of the head is much better than that of the Laxton owl pipe, and the well-defined tufts or ears on this specimen denote a horned owl. The beak is clearly cut and prominent, mouth well defined, eyes being represented by circular hollows, with the exception of a few lines on the edge of the frontal projection, probably representing claws, there are no other diagnostic features marked. The bowl and stem-holes are conically bored, the latter slightly inclined upwards. Diameter of bowl, 9-16 inch, of stem-hole, 5-16 inch;



Fig. 31. (Owl Pipe. Southwold. Side view.)

depth of bowl, 1 9-16 inches, and has been drilled with tools of different sizes, as is evidenced by rings in the lower part of the bowl. The drilling in this specimen has been well done, leaving the orifices sharp and clear, as if done by metallic tools. The surface of the specimen is smoothed, but not polished, and without marks. The frontal projection is large, as is usual in owl pipes, and the perforation, instead of passing from side to side, as it generally does, is reversed, and goes from top to bottom, and has been bored from both ends with a drill of the same size as the stem-hole. The narrower diameter of the centre of the hole shows use of conical drill. There is a cut on top of the frontal projection from the hole to the outside edge, then straight down the centre of the front, till it meets with a cutting from the hole to the outside edge of the bottom, dividing the face of the projection into two parts; on the right part are two parallel lines from top to bottom, on the left is a **X**; these may be taken to represent claws, relics showing contact with white men having been

found on this site, may have a tendency to show that this specimen is a later production of aboriginal skill.

Raven Pipe, Seagrave P.O.—Fig. 35, p. 105, Ontario Archaeological Report, 1901. Ploughed up by Mr. Charles Rennie, Seagrave P.O., thirty years ago on his farm, lot 18, con. 13, Reach Township, Ontario County. It is of excellent design and workmanship, the technical detail of head being well executed, while nothing represents the wings on the sides. The feet being only deep scratches on the somewhat protuberant frontal projection. Tail feathers are not marked. The remarkable feature about this pipe is the number of deep cavities, or slots, on the neck and

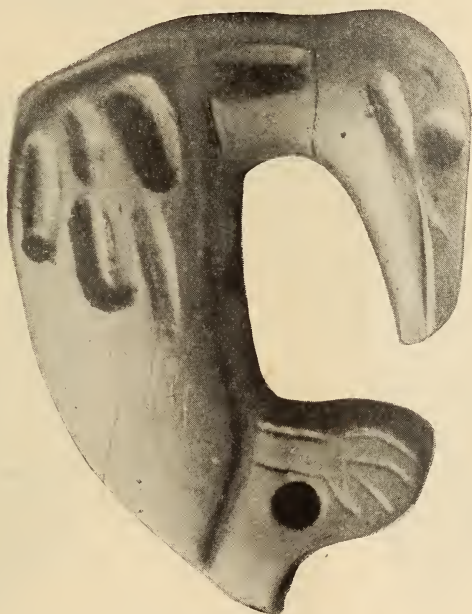


Fig. 32. (Raven Pipe.)

shoulders, there being no fewer than four on the right shoulder and three on the left, with two extra shallow ones; on the neck are three, one on each side, and one on the top; one shallow one is placed between the eyes, and one shallow one on each side of the head behind the eyes, total, ten deep, and five shallow. The deep cavities have been made by boring holes a short distance apart, and then grinding out the space between them. The shallow depressions are mere grooves. The beak is very powerful, and has the appearance of having been larger, as the lines denoting the mouth do not come to the present point. The nostrils are well defined by oblique cuts, and the eyes are represented by circular depressions. Dimensions—perpendicular length, 3 3-4 inches; greatest width of body, 13-16 inch; depth of body, 1 1-4 inches; length of head, 2 inches. The posture is such that it resembles the raven bending its head to eat something held in its claws, which is further accentuated by the prominence of frontal

projection; and it has been suggested that this projection was intended to represent a fish held in the claws, the idea being helped by the outside outline. There is a slight protuberance on the top corner of this projection, having the appearance of something having been broken off. This is in proximity to the end of the beak. Distance between back and forehead, 2 5-8 inches. Below the outlines of the feet is a suspensory hole bored by a conical drill. Bowl and stem-hole bored by conical drills, the former 1 3-4 by 5-8 inches in size, and the latter 11-16 inch in diameter, and is of more obtuse shape than the bowl. Immediately below, a second hole has been attempted, for what purpose is not definite, unless a miscalculation was made on depth of bowl, and then the attempt abandoned. Depth, 1-2 inch, and diameter 7-16 inch, con-



Fig. 33.

(Owl Pipe. Tiny Township.)



Fig. 34.

cally shaped. Transverse section of body somewhat square, with rounded corners. An attempt has been made to delineate wings by longitudinal depressions down the breast—one on each side. From the top of the shoulders, at the junction of the neck, two cuts begin, and pass down each side of the back to the end of the wings. This is a remarkably fine pipe, is in quite a natural position, and shows an enlargement of the aboriginal art idea. Material being a dark slate or shale (obscurely veined Huronian slate).

Raven Pipe, Waterdown, Ont.—In the collection of George Allison, Esq., is a somewhat similar pipe to the Seagrave Raven Pipe, with a shorter and more rounded beak. On the neck and shoulders are a number of slots, some very distinct and others only slight depressions. The pipe was found on Mr. Robb's farm, 4th concession, Beverly Township, Wentworth County, near Troy Post Office (locality formerly occupied by Neutrals). It is

of dark blue, streaked, Huronian slate. The eyes are drilled. There are no signs of marks for feathers or feet. There is a transverse oblique cut running down from front to back, near tail,

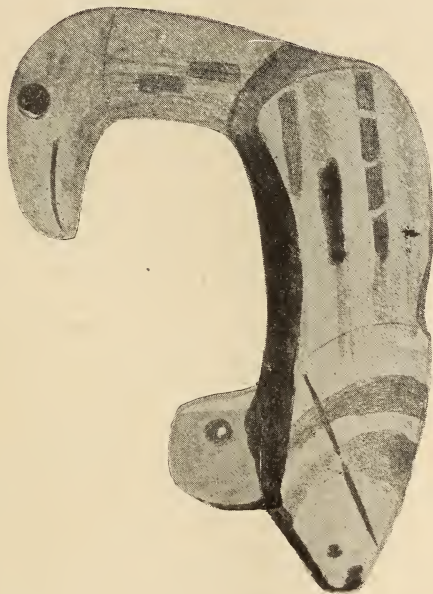


Fig. 35. (Raven Pipe, Waterdown.)

on left side. Hole for suspension in frontal projection bored through from side to side. On the tip of the left shoulder is a red particle of stone (natural). The posture of these raven pipes bears a resemblance to some British Columbian Indian, painted, bird figures.

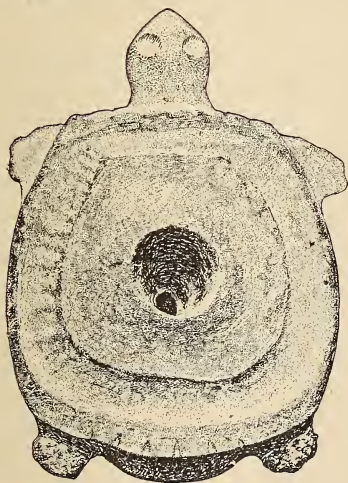


Fig. 36. (Turtle Pipe)

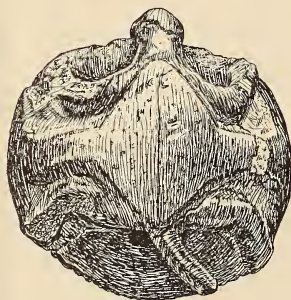


Fig. 37. (Turtle Pipe.)

Turtle Pipe, Sunderland.—Fig. 14, p. 52, Report, 1896. Was found about 1881 on lot 11, con. 5, Brock Township; owned by

John Baker, and was given by finder to Dr. James McDermott, Sunderland. "That the turtle was held in such high estimation by Indians of the Huron-Iroquois race would warrant us in expecting to find numerous representations of the animal in those parts of the Province that were occupied by these people, but the truth is that specimens of this kind are extremely rare. It is made of a white or cream-colored limestone, and is nearly five inches in length by three and three-eighths in breadth. The proportions are very good, and the head is well formed. More labor has been expended on the lower than on the upper side of the specimen, but the latter is evidently in an unfinished condition, as are some other portions of the body. Marks of the tool used in chipping the groove that surrounds the margin on this side may still be seen, and the groove itself seems to be the only part of the work necessary to give the back its proper degree of curve, after which the whole surface would no doubt be rendered fully as smooth as a portion of the under side now is, as it was customary to finish every stone pipe. Another evidence of the incomplete state of this fine specimen is shown in the drillings that have been made into the body, before and behind each leg. It is plain that these borings have been done, just as any workman would do to-day, for the purpose of removing the bulk of the material between the upper and lower part of the test, and at the same time to bring out more freely the form and attachment of the legs. The holes have been produced by two drills, first, one of 3-16 of an inch in diameter has been used to a depth of about one-quarter of an inch, followed by another fully twice that size, with which the small holes have been deeply countersunk. The eyes are represented by slight borings made apparently by the smaller of the two drills already mentioned. No attempt has been made to form a tail, and the condition of the feet adds color to the belief that the specimen has been left in an unfinished state, for while the toes are roughly indicated on two extremities, the other two are perfectly plain.

"There is no evidence to warrant us in placing Brock township within the limits of the Huron nation, and yet it is not so far distant from what we call the "Huron country" as is the township of Manvers. Pipes, however, seem to have found their way to and from widely separated portions of the continent." This is Mr. Boyle's description in above referred to Report. The bowl is in the centre of the back, and is a rounded cavity 13-16 inch in diameter and 3-4 inch deep, reached by a stem-hole from the anus, 1 3-8 inches long and of 3-8 inch diameter, conically bored. The under part (the calipee or plastron) is partially smoothed, and has a wide shallow groove running "fore and aft," and has depressions marking the natural divisions of the shell. On the forward part of the carapace, or upper shell, are seven shallow notches in the edge of the shell and nine on the rear end of same. The toes on the left fore foot and right hind foot, are slightly indicated with five slight indentations in each case. The projection between the hind legs is probably meant for the tail folded close to the shell, and though the indentation thereon would represent the

serrations on the tail of a Snapping-Turtle (*Chelydra serpentina*), I think this is meant for the common mud-turtle. In the longitudinal groove underneath are tool-marks running the length of the groove, while a centre has been indicated, suggesting the use of the compasses. The bowl is not discolored, as it is sometimes by the use of tobacco. The head is extended and the feet partially projected, as if starting to walk. The specimen being very symmetrical—depth from back to front, 1 1-8 inches, head projects 1 3-16 inches, the mouth being well defined. Compare the outline of this pipe with turtle totem, Fig. 115, p. 49, Report 4, also engraved shell gorget, p. 56, Fig. 19, Report, 1896, and the turtle mortar, Fig. 1, stone effigies from south-west in Records of the Past, August, 1902, and with turtle pipe, Fig. 107, p. 48, Bulletin on Polished Stone Articles, New York State Museum, and Fig. 13, p. 38, Bureau of the Ethnology Report, 83-84, with turtle top of bowl, platform pipe.

Turtle Pipe, Ball Point Island, Lake Scugog, Durham County.—Report 96, p. 52, Mr. James L. Hughes. In this case, too, we can do no better than add a little to Mr. Boyle's description, as follows: "Although this specimen has suffered some damage to its limbs, it presents features that are absent from the Brock pipe, and certainly are intended to represent a different species of turtle. It is made of soapstone, a material much more easily worked than limestone, a fact that may, in some measure, account for the superior manner in which its details are brought out.

Originally, what now represents the upper part of the test would appear to have been almost circular, and as nearly as possible three inches in diameter (its present measurement from right to left), but 3-8 of an inch has been removed from the front edge of the test to show the protruding head, on which no eyes are represented. The upper side is quite smooth and almost black, presenting no features worthy of notice; but on the lower side much time and labor have been spent in an endeavor to produce life-like details. In both of our turtle pipes the stem-hole enters the bowl from behind, but as the workman in modelling this pipe has introduced a tail an inch in length, he has formed this appendage, turned artistically to one side, thus leaving the way clear for the insertion of a wooden stem. The maker, too, has aimed at giving the tail a natural appearance by means of a series of notches, but has not succeeded in placing them on the right side.

When closely examined a faintly scribed line may be seen extending from neck to tail on the under side of test. This line has no doubt been drawn by the workman to mark the middle of his material, and enable him to produce something symmetrical which he has managed fairly well. The presence of such a line is suggestive of European "laying out" rather than of such haphazard workmanship as we are prone to attribute to the Indian, and if found on stone pipes only might tend to confirm this suspicion, for it is certain that in numerous instances these are the work of white men, but in at least one case, viz., that of a woman's large semi-circular, slate knife, a tool that no white man was likely to make, there may still be traced the line followed by the artificer

in forming the curved edge of the blade." The long legs and serrated tail (six notches) of this specimen seem to especially indicate the snapping turtle. The seventeen much worn notches on rear edge of carapace may be a tally count. Depth from top to bottom 1 3-16 inches. The bowl is in the centre of back, 11-16 inch in diameter by 7-8 inch deep, and is conically drilled. The stem-hole is in the same position as in Sunderland Turtle pipe, is 3-8 inches in diameter, and is conically drilled.

Human Figure Pipe, Penetanguishene. Fig. 26, p. 32, Ont. Archaeological Report, 1891. Found a few miles south of Penetanguishene, material steatite, grey in color, shading to dark grey on back and front.

Mr. David Boyle, Superintendent of the Ontario Provincial Museum, says in reference to this pipe, "the maker of this pipe



Fig. 38. (Penetanguishene.)

had some pretensions to anatomical accuracy in his treatment of chin, wrist and ankles; he has been very careful to carve the feet intoed according to a well-known Indian characteristic, but with all this care in these and some other respects he has failed to produce thumbs and toes." Dimensions—Perpendicular height, 3 1-8 inches, depth from back to front 2 1-4, width across shoulders 1 3-16. The bowl is oval-shaped at top and conically bored to 1 3-8 inches in depth. The conically bored stem hole of 3-8 inches in diameter entering in front of pipe, below the knees, so that the pipe faces the smoker, which, according to Beauchamp, is an earlier characteristic. The facial features are better defined than is usual in this class of pipes. The surface of the pipe is polished and the backbone defined by a ridge or keel not noticed previously in other pipes. The low part or portion between the legs resembles a small animal turned upside down, and has well-

developed ears and faintly executed eyes looking upwards. A suspensory hole is also in this portion. The bonnet shaped hat that crowns the figure is one used to this day in the southwest part of France, and indicates that it was copied from some early Frenchman. The structural detail of the pipe is fairly well executed, more so than in other human figure pipes that have come under the writer's notice, and the different portions of the body are proportionately more exact. If placed on this base the pipe remains stationary, a feature not generally noticed in Ontario effigy pipes. The posture of the pipe is of a squatting person sitting on the haunches, supporting the head between the hands, with the elbows placed on the knees.

Human Figure Pipe, Brant. Fig. 7, p. 17, Report, 1892. From collection of Chief Smith, Brantford, and is attributed to the Neutrals or Attiwandarons, material yellow soapstone.

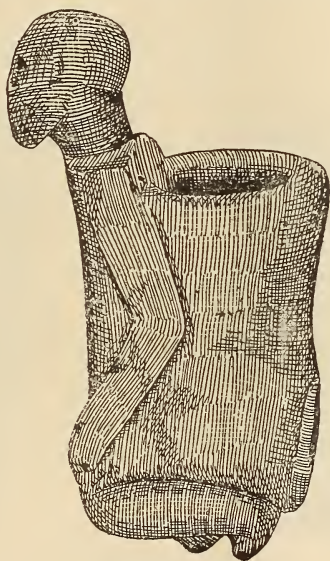


Fig. 39. (Brant County.)

Posture of pipe is of a person kneeling with a burden on the back, hands placed on the knees. The pipe shows much abrasion by wear, especially about the face, knees and orifice of the large stem hole, which is a wide, shallow, conically bored one of 13-16 in. deep and 3-4 in. wide, with a projecting lip orifice, having well-defined ring. This is an unusual feature.

The shoulders are cleanly cut and the feet are curved under the pipe. The small basal projection (broken) was suspensorily perforated. Dimensions—2 7-8 inches in height, distance from face to back 11-16 of an inch, width across shoulders 1 1-8 in, bowl is 3-4 inches in diameter and is conically bored to a depth of 1 1-8 inches. The pipe shows curved lines in arms and legs, but the face is flat, and the nose and mouth though indicated are worn level. The eyes are deep depressions and the stem hole enters through the buttocks.

Human Figure Pipe, Long Point, Fenelon tp. (Fig. 24, p. 22, Ontario Archaeological Report, 1897. Fig. 24, p. 21, Report, 1900.)

Material mottled grey soapstone. Found by Mr. Hoyle on his farm, Long Point, Fenelon township, North Victoria County. This is a ruder specimen of pipe sculpture though well polished. The details are not so well carried out as in the previous two examples. The legs were separated from the body, the left one below the knee being now broken off. The face is flat with only rude eyes and a mouth delineated. No markings represent hands or feet. Posture, squatting, with arms folded across knees. Suspension hole at base, which is flat and square, and divided into nine small squares by three sets of incised lines crossing each other on the underneath surface. Pipe remains upright if placed on its base. Dimensions—Height, 2 1-8 inches; depth, back to front, 1 3-8; width across shoulders, 1 1-16. Stem hole conically



Fig. 41.

(Fenelon Township Pipe.)



Fig. 42.

bored in back 1-4 inch in diameter and 1-2 in. deep. Bowl being more of an excavation than a boring, showing tool-marks as of "gouging" and is a rounded cavity 1 11-16 by 5-8 inches deep.

Human Figure Pipe, Holland Landing. This pipe was found at Holland Landing by a man in the employment of Capt. Jaques, now of Briercrest farm, Drinkwater, Northwest Territory, in a letter from whom, bearing date of the 27th of June, 1902, he states that he has forgotten the name of the man who found the pipe, and the year of the finding, but that it was found in the water at a little distance from the shore. The present owner does not know any particulars about it. The specimen has been called the "skeleton pipe" on account of the legs and arms being separated from body. Material greenish-grey soapstone. Surface well polished, and as in the Long Point pipe the hands and feet are not brought out, and the facial features are very rudely formed; the eyes being saucer-like depressions and the nose and mouth defined

by lines. The face is flat. The stem-hole is in the middle of the back and is surrounded by a raised orifice. The posture is a sitting one on a projecting base, with arms folded across the knees. The upper part of the arms is separated from the body, and the upper part of each thigh is continued in a ridge around the bowl to the lower part of the stem hole. Dimensions—3 1-4 inches high, width across shoulders 1 1-2 inches, depth from back to front 1 3-4 inches.

Other Human Figure Pipes. An extract from The News Letter, Orillia, appearing in The Lindsay Post, January 12th, 1894, states that a human figure pipe was picked up on a farm at Price's Corners, near Orillia. This was a stone pipe representing a squaw carrying a round basket on her back. The basket was used as the bowl of the pipe. The pipe was found while excavating. No trace of this pipe can now be obtained.

Mr. S. Cunningham of Victoria Road had until recently in his possession another human-figure pipe of yellow soapstone. This one was of nearly the same size and material as the Brant pipe, and came from Milton, Ontario. The posture was similar to Long Point pipe, but the head was unfortunately broken off, and the pipe was further mutilated by some added markings. This pipe mysteriously disappeared several years ago.

Mr. Boyle says that "the crouched or seated position was the one usually chosen when the human figure was used as a pattern in pipe making, no doubt, partly because of the compressedness and partly because the bowl could be more easily shaped from the rounded shoulders." The position of limbs varies but little from the stereotyped clay-pipe patterns.

The writer would be much pleased to receive photographs or drawings, with full descriptions, of effigy pipes from readers who have specimens of this kind in their possession, for the purpose of continuing his notes in future reports.

NOTES ON NORTH VICTORIA, ONTARIO.

By George E. Laidlaw.

Embankment. In company with A. F. Hunter of Barrie, a visit was made to the embankment site 26, lot w. 1-2 23, con. 2, a section was cut through it where it seemed more prominent and basal humus was clearly defined on original surface, which inclined upwards thus proving clearly the artificiality of its origin. It is suggested that the embankment was used in connection with game-drives.

New Sites. No. 33 is a small transient site on the east shore of Long Point, South Bay, Balsam Lake, on lot 29, con. 3, owned by Mr. F. Staples, who found a skeleton here ten years ago. The site is directly on the shore and opposite site No. — McArthurs on the east side of the bay. The ash beds are small and shallow, disclosing pottery and flint fragments having a tendency of later Algonkin occupation.

Other sites reported but not visited are : One on lot 13, con. 10, Eldon, which yields ordinary relics, and another on lot 9, con. 8, Fenelon, Ball Point, Sturgeon Lake, John Cuppins, owner. This place is three miles from Cameron Post Office, and produced the usual relics, amongst them being a copper spearhead. The site seems to have two long rows of ash beds. A few skeletons have been found here, also a knife bearing the date 1772, but which was not found on site. There are other sites in the vicinity, notably on Strowds, lot 16, con. 6, Fenelon, and at Hewies and Cullis, adjoining farms, some two miles north of Cameron Post Office. A few have been reported from the south end of Eldon, and all these will bear investigation next season: No. 33, Staple's, lot 29, con. 3, Fenelon, east side Long Point, Balsam Lake ; No. 34, lot 13, con. 10, Eldon. No. 35, Ball Point, lot 9, con. 8, Fenelon Township on Sturgeon Lake.

The country south of Balsam, Cameron and Sturgeon Lakes seems to have supported a large aboriginal population, as the soil is good and surface of the country well suited for location of villages and aboriginal cultivation, being undulating and well watered with streams. The country to the north of these lakes or the main internal waterway is a sterile mountainous tract of Laurentian formation. The bulk of the village sites seems to be (as far as they are known to date) immediately on the south side of lakes extending along the chain to the east. Then we hear occasionally of isolated villages, and an odd group here and there as far as S. Simcoe to the west, and extending from the southern edge of granite regions away to the south of the county where it touches the hilly country in the vicinity of Peterboro.

There are sites reported from Verulam township, south of Sturgeon Lake, which have not been examined this year, on account of lack of time and general rough weather. The principal ones being on the 5th concession, Robert Mitchell's place, near Dunsford Post Office, where large quantities of pottery and relics are picked up. Also in the vicinity of the Scotch line, where are also quantities of relics, and at Cambray south part of Fenelon township, are several unrecorded sites. One being on the lot occupied by the manse, which produced relics showing European contact and had a graveyard in immediate vicinity. A Mr. Wilkinson owned the lot. Graveyards and ash beds are reported from this vicinity especially at several places along the Laurence Creek. A mortar on a large boulder was noticed on the east half of lot 23, con. 2, Fenelon, adjoining the embankment site.

ARCHÆOLOGY OF BLENHEIM TOWNSHIP.

By W. J. Wintemberg.

Location and Area.—Blenheim lies east of Blandford township and is the most easterly portion of the county of Oxford. On the north it is bordered by Wilmot township; on the east by North and South Dumfries, and on the south by Burford. It is twelve and one-half miles from north to south, and ten from east to west.

The southwestern part of the township consists principally of light, sandy soil. The same may be said of the southeastern and middle portions. Below Drumbo, on each side of the middle town line, there is a large flat tract of alluvial land, consisting chiefly of a heavy clay loam. Large areas in the township are covered with marshes. The two largest are shown on the map.

Creeks, Rivers, and Lakes.—A glance at the map will show that the township is well watered. The Nith winds through the northern portion and enters North Dumfries near the village of Ayr. It re-enters Blenheim between the ninth and tenth concessions, and after pursuing a tortuous course through the southeastern section, flows to its confluence with the Grand River at Paris. Horner's creek, another stream of considerable size, flows through the southwestern corner. Besides these, many other smaller streams traverse different parts of the township. Burgess Lake, before it was drained, was several acres in extent, and Pine Pond covers about twenty-five acres. Another smaller lake, called Blue Lake, lies between the fifth and sixth concessions.

The Fauna.—Game of all kinds was abundant in this part of the country when it was first settled, and it must have been more plentiful in prehistoric times. Father Daillon, when he visited the Neutrals, in 1626, remarked the abundance of deer, moose(?), beaver, wild cats, squirrels, and fish. The ash beds of every Neutral village site yield bones of nearly all mammals, birds and reptiles found in this part of Ontario, and it is apparent from this fact that none of our vertebrate animals were excluded from the aboriginal menu. All the principal streams are well stocked with fish. Pike are caught in Horner's Creek, and catfish, suckers, trout, several species of chub and a few other varieties of less economic importance are found in the lakes and streams of the township. Besides these, the mollusks furnished food.

The Flora.—Vegetable growth, judging by indications of the present day, appears to have been luxuriant all over the township. The arborescent vegetation was of much economic importance to the aborigines. Besides many other uses, which are too well known to mention here, the larger trees, especially the pine and other conifers afforded them protection against the piercing winds of winter. All the Neutral villages, which I have examined, are situated where the pine flourished, and I have yet to report one in a locality where there were only deciduous woods. Other forms of vegetable life are abundant, and many of these, perhaps, were used as food, or took an important place in the primitive materia medica.

Pre-Neutral Sites.—In an article on "Indian village-sites in Oxford and Waterloo" in the Archaeological Report for 1900, I endeavored to show that there were evidences of two distinct periods of aboriginal occupancy in this part of the country. No evidence has since appeared which would make me abandon this view. Recent research, however, has invalidated some of the statements made in that article. For instance, I find that the tablets or gorgets are not exclusively a pre-Neutral product, they

being found on most Neutral village-sites. But this fact will scarcely show that the two classes of village-sites were occupied contemporaneously. While gorgets may be found on Neutral sites, bird and bar amulets, banner stones, and stone tubes are conspicuously absent.

I will begin in the southwest corner of the township. A circle is used to indicate the pre-Neutral camps on the map. In many cases there is only a single camp on one place, where more than one occurs, a cross (x) is placed below.

No. 1.—A single camp on the south half of lot 7, con. 2. This is near a small pool. On the north half of this lot, many arrowheads and a few celts and adzes are found.

No. 2.—A single camp on the east shore of Burgess Lake. The owner of the farm (south half lot 13, con. 6), found many arrowheads, celts, adzes, four grooved axes, several gorgets and pendants, boat-shaped amulet, broken bird amulet, and many pottery fragments. Some of these pottery fragments were decorated with a stamp. One stamp, probably a thin piece of wood carved on the end like printers' type, produced the "herring bone" or meander pattern. Another kind of ornamentation seems to have been made with the rocking or roulette stamp. Several sherds were decorated like the ceramic ware of the ancient Britons, with twisted cords or plaited strips of grass or bark.



Fig. 44 (24629). Full size.

No. 3.—Three single camps, about a quarter of a mile apart, on north half of lot 15, con. 6. These are north and northwest of the lake. The owner formerly found gorgets, celts, and arrowheads. Arrowheads are found on adjoining farms.

No. 4.—A camp consisting of several black spots on the north half of lot 22, con. 6. These spots are on the south bank of Horner's Creek. Arrowheads, a few celts, and a pendant made from a broken gorget were found here.

No. 5.—Two spots on the high bank of the Nith on lot 8, con. 7, have yielded some gorgets, celts and arrowheads.'

No. 6.—A single camp in a field on James Harmer's farm, north half of lot 11, con. 9. The spot is about one hundred feet south of the 10th line. Here were found a few arrowpoints, chert implement (24324), knife (24325), celts, and two gorgets or pendants (24496, 24497), with a single terminal perforation. On the opposite farm, south half of lot 11, con. 10, the owner found arrowheads, celts and other stone relics.

No. 7.—On the old Baxter farm (north half of lot 10, con. 10) there are several black spots, on which are found burnt stones. Many arrowheads, a number of drills, and two round gorgets, with a median perforation, were found here. One drill (Fig. 44) is a very fine specimen, and is one of the most perfect drills ever found in the section.

No. 8.—An isolated single camp occurs on the south half of lot 9, con. 11, on the south bank of the Nith. A bar amulet, broken gorget, drills, celts, and arrowheads were found on this place.

No. 9.—Another single camp is on the south-east part of lot 9, con. 12. It is on a high bank near the Nith. Mr. Bass, the owner, finds arrowheads on this farm. Celts and adzes were found in former years.

No. 10.—The farm being north half of lot 8, con. 12, was described in the Archaeological Report for 1899. In a field on the adjoining farm (lot 7), several formerly inhabited spots are found along the bank of the river. Pottery fragments of a very crude kind were found near those on lot 8. A few arrow-points, an unfinished celt, part of an unfinished gorget, and a gorget with one hole, were also picked up.

No. 11.—A single camp on lot 6, con. 12. No finds reported.

No. 12.—A single camp on David Clemens' farm, lot 5, con. 12, near the River Nith. Arrowheads are met with.

No. 13.—A camp on the south part of north half of lot 2, con. 12. Numerous arrowheads, celts, a few drills and gorgets have been collected here. In the report for 1899 I referred to a camp (No. 6) on Mr. Benj. Schlichter's farm, but since then, after a thorough examination of the place, I have discovered no traces of an encampment, although there are many dark spots, which, however, appear to have been made when burning stumps. A few years ago, when the field was first ploughed, two small pottery sherds were found by a friend, and these are now in my collection (24222-23).

No. 14.—Single camp on lot 8, con. 13. A son of the former owner found a number of arrowheads and the unfinished banner stone (22511) described in last year's report (p. 8, Fig. 1).

No. 15.—On the north half of lot 9, con. 13, are five large camps. One is north of the dwelling-house, three others are on top of a ridge southwest of the house, and another is on the summit of a high knoll, on the south side of the farm. There are also two on the south half of this lot. Arrowheads and celts have been found on the north half, and this spring a gorget was ploughed up near one of the largest spots, but its value not being appreciated by the finder it was cast aside as worthless. On this spot I found an oval syenite pebble, smooth on the flat sides, with peripheral abrasions, indicating a possible use as a hammer-stone. A small stream formerly flowed through this farm.

No. 16.—On lot 10, con. 13. One of the spots is in a field on the east side of the farm. The other is on the north side of the

woods. Both are on high ground. There is another in an adjoining field, north half of lot 11. This is situated on low ground. Arrowheads and a celt were once found on this farm. A small rivulet formerly flowed through this section.

No. 17.—A single camp on the north half of lot 13, con. 10. This is near a small spring and on low ground. A few arrowheads and a celt were collected.

No. 18.—On the south half of lot 17, con. 11. The owner of the place finds celts and arrowheads.

No. 19.—There is a single camp on the south half of lot 21, con. 12, near the south bank of Wilmot creek. Arrowheads are found.

No. 20.—Three camps are found on lot 17, con. 12. These are near the bank of the Nith. A collector found here a black slate pendant, rubbing stone (23968), and some arrowpoints. A stone shaped like a bar amulet, with a groove extending along the flat or under side, was also found.

No. 21.—A single camp on the north half of lot 18, con. 13. Two gorgets were found years ago. One is a very beautiful specimen, being made of porphyritic diabase. Arrowheads are sometimes met with.

No. 22.—Five or six black spots, with numerous stones cracked by fire, are found on lot 14, con. 13. These are on the south bank of Wilmot Creek. There is another on the north bank. Arrowheads were very numerous years ago. A nice banner stone, shaped like a hammer, was found.

No. 23.—There is an isolated camp on the high bank of the Nith, lot 20, con. 14. No relics of any kind reported, although, I have no doubt, they exist.

No. 24.—Three single camps on the north half of lot 21, con. 14. One on the extreme south of the farm is on a high bank, about seventy or eighty feet above the bed of the river. The former owner found gorgets, stone axes (one grooved), arrowheads and spear points. An unfinished banner stone, the central hole not being completed, was found here.

No. 25.—A single camp occurs in a field on the north half of lot 18, con. 14. It is on a high bank not far from the river. No finds of any kind reported.

A small fragment of pottery, of the same kind as that from No. 10 was picked up on the south half of lot 19, con. 12. There are no camp sites on this place, but the presence of the pottery shows that it was at least occupied temporarily.

Several fragments of clay vessels were found on the south half of lot 20, con. 11. This shows that there was a temporary camp here. Black Creek flows through the farm.

Neutral Village-sites.—No. 1.—This site is about three-quarters of a mile west of Horner's Creek, on the north half of lot 17, con. 1. A swamp lies to the north of this site, which is a very large one, covering several acres. Many relics were found in former years. The bulk of the material is in a private collection. Very few relics are found now. Arrowheads and other stone relics are picked up on adjoining farms.

No. 2.—Is a large site, consisting of about sixteen ashbeds, on the old Harper place, lot 20, con. 3. It is situated on the south bank of Horner's Creek. Mr. Isaac Harper informs me that when the field was first ploughed, about thirty years ago, large pottery fragments, bone and stone relics, and clay pipes, were discovered. On one occasion a very fine clay pipe was found, but the finder, instead of preserving it, destroyed it. I found a number of arrowheads, two drills, several pottery fragments, bone awl and bead, and part of a Huronian slate gorget. I also discovered a human jaw-bone, which belonged to an extremely aged individual, every tooth being gone and the alveolæ closed.

No. 3.—On south half of lot 1, con. 5. This site is near a spring, and was well sheltered by the surrounding hills. The field has been under cultivation for the last fifty years. The usual relics are found here. Most of the material was secured by a private collector.

No. 4.—Is a large village-site on the north-east part of lot 9, con. 6. One ashbed is on the south half of lot 9. There were several lakelets, or ponds, now nearly all marshes, near this site, and these no doubt attracted the aborigines to the spot. The usual relics, such as pottery fragments, bone awls, arrowheads, etc., are met with. Much material was discovered about fifty or sixty years ago, when it was first ploughed, but in those "good old days" no one was interested enough to preserve the relics.

No. 5.—Was described in the report for 1899. It is on the south half of lot 10, con. 8.

No. 6.—Is another site east of No. 5, on lot 8, con. 8. It lies south of the Wolverton cemetery, and on the west bank of the Nith. There are about nineteen ashbeds. The usual relics have been discovered. There are several ashbeds on the south side of the road. One large kitchen-midden was found when this field was first ploughed.

No. 7.—On the south half of lot 13, con. 10. This site was described in the Archaeological Report for 1899.

No. 8.—Is on lot 14, con. 10, not far from the river. A number of relics were found. On one occasion five or six celts and several arrowheads were found en cache on a high bank west of the site.

No. 9.—On the north half of lot 23, con. 10. This site was fully referred to in the report for 1899, and needs no further description here.

Burial Places.—There are very few burial places in connection with Neutral village-sites in Blenheim township. There seems to have been a burial ground between village-sites No. 5 and 6, for several skeletons were discovered (see 1899 Report, p. p. 85-86). A skeleton was found near one of the ashbeds on No. 6. Frank Wanner, who lives near Wolverton, told me that about thirty years ago an Indian skull was found where the Methodist Church now stands in the village of Wolverton. They had pulled a stump and found the cranium firmly wedged in between the roots. It was perfect. A man from New Brunswick got it.

William A. Affleck, while digging a ditch through his farm (south half of lot 17, con. 1), found the skull of a child, but supposing it to be that of a European, he re-buried it. It was about one and one-half feet below the surface. The field was covered with pine stumps, and no doubt the skull was at one time covered by one of these. It is likely that the skull was prehistoric, and that of an individual inhabiting village-site No. 1.

I am informed by John E. Hewitt, of Drumbo, that about eighteen years ago he found three skeletons under a pine stump on lot 18, con. 2. This stump stood on the bank of Horner's Creek. Nothing was found with the skeletons, and they were re-buried. Mrs. H. Buck told me that one of the skulls was brought to the farmhouse, but she does not know what became of it. This farm is not far from village-site No. 1.

About thirteen years ago, while doing statute labor on the 4th concession, near Pine Pond, the workmen found the skeleton of an Indian. The remains had been buried in a sandbank about two feet below the surface. Mr. Thomas Ware, of Plattsville, who gave me this information, secured the skeleton and sold it to a local physician, but what subsequently became of it is not known. The width of the pelvis indicated that the remains were those of a female. The teeth were remarkably white and well preserved.

About thirteen or fourteen years ago a skeleton was found in a sand-bank on lot 10, con. 10. The remains were re-buried. No other relics were found with the skeleton.

F. B. Martin, of Canning, told me of a place on lot 5, con. 3, which was believed to have been a burial place. When the land was first cleared a large number of long hollows were to be seen. No skeletons were discovered when the ground was ploughed, and no investigation was ever made, so it is hard to say whether this really was a burial ground.

Mound.—Charles Milton, Drumbo, told me of a mound on the south half of lot 15, con. 1, on the Horner's Creek flats. He said that when he was a boy, about fifty years ago, he and several other lads had their swimming-place near this mound, and on several occasions dug into it, and once found a small copper kettle and some coarse pottery sherds. The mound was then about twenty feet long, fourteen wide, and nine or ten feet high. I saw the mound several days before I met Mr. Milton, but I regarded it then as an interglacial freak, or the remains of Thomas Horner's mill-dam. During the Upper Canada Rebellion, or some time after, a large number of Indians camped on the flats between the first and second concessions, and it is possible that they used the mound as a burial place.

If I get time, and am granted permission from the owner, I shall ascertain by digging, whether the mound is of artificial or natural origin.

Surface Finds.—Arrowheads are found in nearly every part of the township. Considering their commonness, I did not think it necessary to indicate on the map where they occur, and it is only when found with other relics, such as celts and adzes, that I have done so. Where ceremonial implements are found with

axes and arrowheads, a cross is placed below the sign which indicates "surface finds."

It will be observed that surface finds, ceremonial implements especially, are more numerous near the lakes and larger streams, and near the pre-Neutral camps.

Of the relative frequency of ceremonial objects, I may say that I find gorgets and pendants are most frequently discovered; banner stones and bird and bar amulets come next, and then stone tubes, two of the latter class having been reported.

Four stone pipes have been found in different parts of Blenheim. One was found on lot 6, con. 1, about ten years ago. It is of a type (Fig. 45) not figured by McGuire in his monograph on "Pipes and Smoking Customs of the American Aborigines." It is made of quartz or a species of felspathic stone. The bowl is three and three-fourths inches in height, and the stem is about two inches long. A piece of the stem is broken off. The stem-hole is nearly three-eighths of an inch in diameter, and it is evident that the pipe was provided with a wooden stem. A collar surrounds

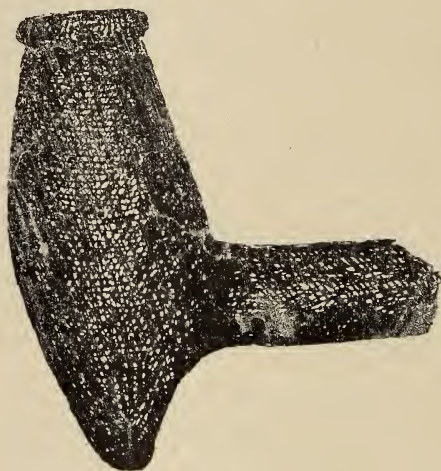


Fig. 45. (Three-quarter dia.)

the upper part of the bowl. The outside surface is smoothly finished. This pipe should be secured by the Museum before it becomes the property of some local collector.

A pipe of nearly the same shape was found on lot 3, con 9. It was made of slate, and had the figure of a canoe cut in on one side of the bowl. This pipe was lost, or stolen, several years ago.

A stone pipe, or whatever else it may have been, was found on the south half of lot 12, con. 13. It is now in the Provincial Museum, and was described by Mr. Boyle in the Archaeological Report for 1894-95 (p.p. 68-69).

Another pipe was found on lot 22, con. 4. The bowl of this pipe was square, each side being about an inch and one-half wide. The stem was about six inches long. It was made of red stone; perhaps catlinite. It is not known what became of this specimen.

Besides the copper awls found on village-site No. 5, only one other copper implement was discovered in the township, and this

is a copper spear or knife, picked up on lot 19, con. 6. It is a well-preserved specimen, six inches long, one and one-eighth wide at the widest part, and three-fourths at the base. It is elliptical in cross-section, and a little more than an eighth of an inch thick. In shape it resembles Fig. 248, Boyle's "Notes on Primitive Man in Ontario." Arrowheads, but no other stone relics, occur on this farm.

John McCrow found a stone tube on his father's farm, north half of lot 11, con. 3. Fortunately, I was able to secure this specimen for my collection in the Provincial Museum. Mr. McCrow, sr., found arrowheads and celts years ago.

Among other relics, such as celts and arrowheads, found on north half of lot 16, con. 4, was found a broken butterfly banner stone. A hole was afterwards drilled through each wing, evidently for the purpose of binding the broken parts together.

Two peculiar gorgets were found on the south half of lots 3 and 4, con. 5. I have a cast of one in my collection (No. 24476). The other is of a triangular shape and has one perforation. Teeth are cut into the lower edge at an angle. For a good illustration of these specimens see "Records of the Past" (Washington, D.C.) for May, 1902, pages 153, 155, and Figs. 12 and 15.

On lot 22, con. 3, arrowheads and celts are collected. A small hatchet-like banner stone and a large chert axe were picked up on the north half of lot 22, con. 2.

Numerous arrowheads and a small banner stone were found on lot 21, con. 2.

On the north half of lots 16 and 17, 5th con., arrowheads, celts and gorgets occur. A very fine drill has also been collected. One gorget from this lot has three holes, and around the middle one a circle, about an inch in diameter, was cut. This circle is almost as round as if it had been done with a pair of compasses. The edges of the gorget have been sharpened. It is of a rectangular shape. Here, too, was found a piece of polished stone, which may have been the head of a snake or lizard effigy.

The half of a very nice crescent-shaped banner stone was found on the late Henry Muma's farm, lot 13, con. 7.

On lot 7, con. 9, was found a gorget, of which No. 24475 in my collection is a cast. It is made of a reddish colored slate, banded with veins of a micaceous mineral. One of the sides has a groove extending from one end to the other. Arrowheads and celts are frequently gathered on this farm.

Arrowheads, knives, celts, adzes, a stone pestle over one foot in length, gorgets, and a broken banner stone were found on lot 6, con. 10.

Several gorgets (one of which is in the Museum), arrowheads, celts and a pestle were found on the old McEwen farm, lot 8, con. 10, by the tenant. A small mortar was once ploughed up, which was consigned to a stone heap, and cannot now be found. A broken bar amulet was also discovered. Holes were drilled at the fractured ends, two being through one end. Below each of these two holes there is a notch, and the presence of this feature shows that the amulet was bound to some other object, the notches making the attachment more secure.

On the south half of lot 23, con. 11, was found a very nicely-polished stone tube about seven inches long, which was afterwards lost. Gorgets, adzes, axes, spearheads, arrowheads, and knives were numerous. At the present day many arrowheads are still picked up. Nos. 24490-91 are from this farm. No. 24491 is of a very peculiar shape, and is of a type which Prof. Thomas Wilson styles class B. (shouldered, but not barbed) in his classification of arrowpoints, spearheads and knives.

A bird amulet was found on the Bullock farm, north half of lot 18, con. 11, about sixty years ago. It is a very fine specimen, and is now in the possession of M. Wilkinson, Woodstock.

A bird amulet was found in a garden on lot 19, con. 13. It resembles Fig. 21 in Prof. W. K. Moorehead's "Bird Stone Cereemonial." It is now in a private collection.

A bird amulet (24501), part of a pick-like banner stone (24296), part of an unfinished gorget (24498), wing of an unfinished banner stone (24363), and a number of arrowheads were found on the south half of lot 13, con. 13, not many years ago.



Fig. 46. (One-third size.)

A few years ago I found a mortar on the north half of lot 22, con. 9, near the Grand Trunk Railway.

Several gouges have been found throughout the township. One was found on the Markle farm, south half of lot 10, con. 6. It is hollowed from end to end. Mr. Isaac Hewitt found a specimen made of syenite (24366) on his farm, south half of lot 19, con. 12. This is not hollowed out so much as some found in other parts of the Province. There is another in a collection at Drumbo, which is of the same material as the above specimen. It was found in Blenheim.

Post-European Relics.—Iron relics brought in by the early French and later British traders are not very numerous.

Four iron tomahawks of early French pattern were found on the south part of north half of lot 2, con. 12. The proximity of these to camp site No. 13 would almost lead one to think that it was of Post-European date, but the fact that ceremonial implements are found proves that it is prehistoric. An iron knife was ploughed up in a new piece of ground on the next farm, lot 1.

Tomahawks of the same shape were found on the north half of lot 7, con. 9; lot 6, con. 13; and lot 3, con. 14. Another of an entirely different type (24233) was found on the south half of lot 24, con. 14, and was presented to me by Mr. James Knox, the finder.

Henry Burgess, of Drumbo, has one in his collection which was found on the south half of lot 11, con. 4. This axe (Fig. 46) has a sharp curved point on one end, and must have been a very effective weapon. Early in the last century, some time after or before the war of 1812, a man by the name of Lester was hunting in the woods on the Murray farm. He shot a deer, and was about to take possession of it, when an Indian appeared on the scene and laid claim to the carcass, because he had fired the first shot. An altercation ensued, and Lester shot and killed the Indian. He buried him and hid the gun, knife and tomahawk in a hollow tree, where they were discovered many years ago. This tomahawk might be the one that belonged to that Indian.

An iron spearhead was found on the Pinkham farm, east of Murray's.

Indian Trails.—I have heard of only two trails in the township, and these were used in the early part of the last century. One of them passed over the high ground from Burgess Lake to the River Nith. The course as indicated on the map is approximately correct. No definite information was obtainable as to the point where the trail terminated. William Burgess, of Princeton, who is over ninety years old, says it terminated near Wolverton. I think this statement is correct. This trail was still used by Indians over eighty years ago.

Richard Hewitt, of Bright, told me of a trail which extended from the Nith to the banks of Horner's Creek, in Blandford Township. It crossed his father's farm, and passed through the country about midway between the two concessions. This trail was used by Iroquois Indians over fifty years ago.

Short trails no doubt connected all the Neutral village sites; but traces of these, of course, would become obliterated soon after the Neutrals were exterminated by the Iroquois.

Conclusion.—The work committed to me has been done as thoroughly as possible, but one cannot hope to accomplish much in a single season. Nevertheless, I am sure that few, if any, new village-sites can be added to my list, unless in some locality which is at present uncultivated. A canvass was made of nearly every farm in the township, and by this method not one village-site, unless the farmer himself is ignorant of its existence, would be left unrecorded.

There are many now who, though often actuated by mercenary motives, preserve such relics, and there are some collectors who offer fabulous prices for everything that is curious, and the finders, knowing full well that some collector, with more money than brains, will pay it, usually demand an exorbitant price for their specimens, and this frequently results in a scientifically valuable relic finding its way into some obscure collection, where students will never see it, or else it is sold to some dealer in a foreign country.

This shows how important it is that the Department should make every effort to secure valuable material and information before it is too late.

The map, copied from Thomas Shenstone's map of Oxford County (1852), is drawn to scale (130 chains to an inch). Many additions and corrections had to be made.

ATTIWANDARON OR NEUTRAL VILLAGE-SITES IN BRANT COUNTY.

By F. W. Waugh.

Geological Outline: The Townships of Brantford and Onondaga, in Brant County, lie almost entirely within a belt or strip, of irregular width, which passes through the Niagara Peninsula, and then extends northwest to the shore of Lake Huron above Goderich. This strip is marked by exposures of the Onondaga formation, one of the Silurian group. A great depth of drift conceals the rock formation throughout the greater part of the two townships. To the east of Fairchild's Creek the upper layers of the drift consist very largely of clay, interspersed with areas of fine reddish sand. It is usually on hills, or elevated land covered with soil of the latter kind, that we find the remains of the rude villages and ossuaries of the Attiwandarons.

The fields on both sides of Fairchild's Creek are eaten in many places into hills and gullies by numerous streamlets and creeks, some of which flow only in the spring. Fairchild's Creek, for some reason, does not seem to have been a favorite location for villages. Here they would have been assured of a good supply of water, as well as fish and other game. It may be that it was preferable to be back some distance from the creek, which formed a too convenient highway for war parties of hostile tribes. The most of the sites so far discovered in this part of the township were situated along the banks of a slow, muddy stream, which, with its numerous branches, forms an almost endless maze. This stream lies about four miles to the east of Fairchild's Creek, and in its general direction runs nearly parallel with it. It empties into the Grand River below the village of Middleport, opposite the Six Nation Reserve. It is now considered too small to possess a name, but, judging from the wide valleys and alluvial flats in many places, it was in former times a large stream, frequented by beaver and other game. In the following notes reference will be made to it as Mud Creek. Its course on the accompanying map has in part been verified by the writer's personal inspection.

Village-sites: (1) Mitchell's formerly Seeley's), lot 9, 1st range, S.H.R.* Over forty years ago two boys, while unearthing a woodchuck on the back of a farm then occupied by a Mr. Seeley, discovered an ossuary or bone-pit. After making allowance for exag-

*N. H. R. and S. H. R.—Abbreviations for north of the Hamilton Road and south of the Hamilton Road.

geration and other inaccuracies, the evidence goes to show the former existence of a large ossuary, containing the remains of many

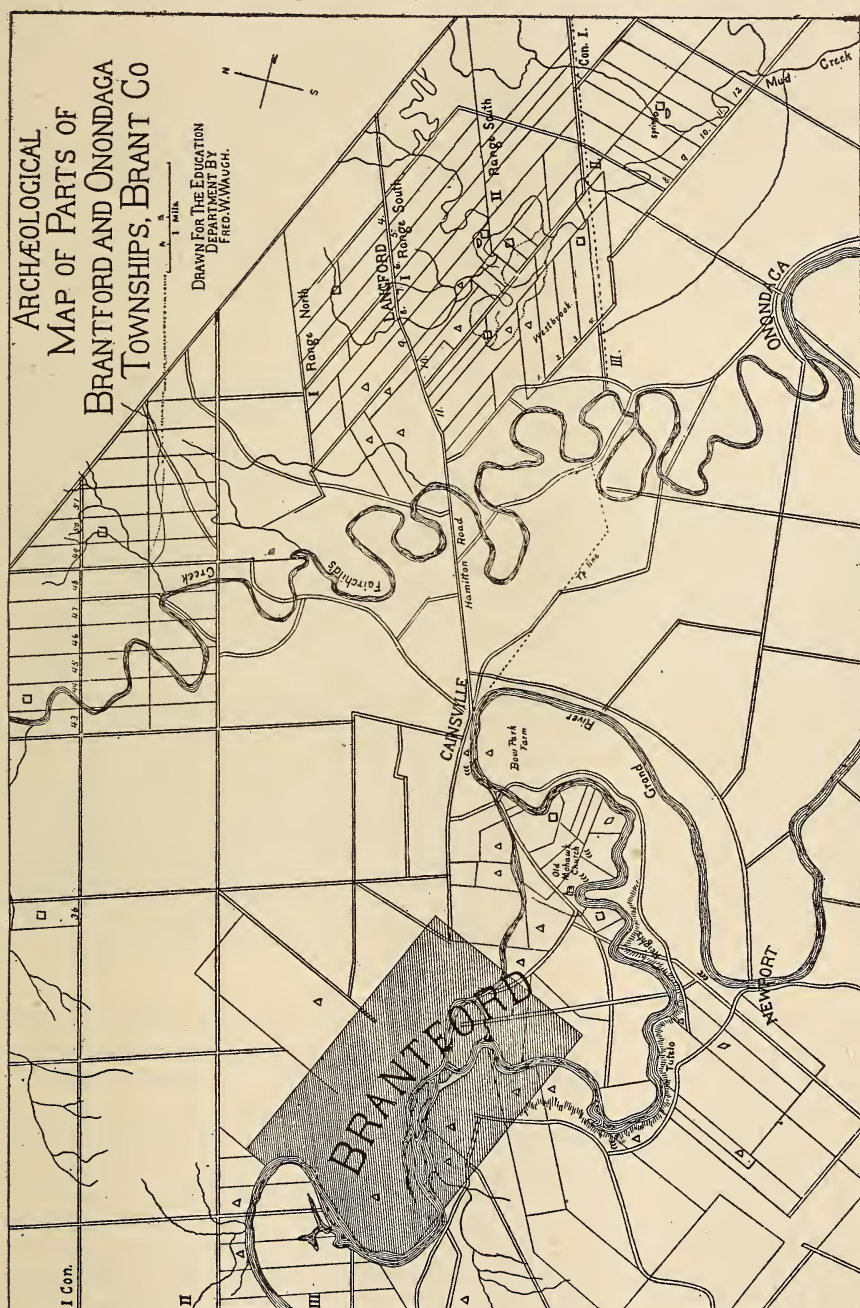


Fig. 47.

bodies. A reliable estimate of the number is difficult to arrive at after this lapse of time, but, according to several eye witnesses, hundreds of skeletons were unearthed. A great

rush of ignorant curiosity-seekers took place to this hitherto secluded spot when the find 'became generally known, "then there was hurrying to and fro, and rushing in hot haste." In fact we could hardly realize how the discovery was distorted and magnified in the rural mind if we did not have examples of the same thing to-day. Not long since an ossuary was discovered near Campden, Ontario, and instead of the excavations being placed under the superintendence of an experienced archaeologist, everything of interest was removed with avaricious and hasty hands.

Immediately following the discovery of the ossuary, the whole hill-top, for seven or eight acres around, was found to be rich in Indian relics. (Fig. 48.) Little or nothing, of course, concerning



Fig. 48.

the real nature of the find was known. Of what interest was it to the ignoramus, who revelled in material of almost priceless value to the scholar, to gather data to enable us to determine who constructed these works ?

On the site of the ossuary, the writer has seen numerous skulls and other bones exhumed.

Both village-site and ossuary occupy the top of a peninsula-like elevation extending westward. One-half of this is still in bush and pasture, but numerous visits have disclosed the location of all the principal ashbeds and kitchen-dumps. The land here was formerly covered by a heavy growth of red pine, mixed with beeches, maples and other hardwoods. The cultivated part shows about half a dozen ashbeds. Two of these are of considerable length, agreeing with our knowledge of Indian custom in the

* In the illustration above, the ash-beds in the field are marked A, and the site of the ossuary O.

building of elongated cabins, or, as they are called for this reason, longhouses. The investigation of an ashbed in the bush showed the dimensions to be about twenty-one feet in length by four or five in width. In this deposit an interesting rubbing stone Fig. 49 (23684) was found; the material of this was fine, light-colored sandstone. A collector known to the writer discovered a single burial in the bush; in this grave were found a carved pipe of nearly white stone, some arrowheads, and a knife of flint, showing evidences of attachment to a handle. Other single burials are reported to have been found, a further proof that the burials were made subsequent to the desertion of the village as a place of residence. We are led to the same conclusion regarding the ossuary. From our knowledge of Indian character and disposition, we may be sure that even though the bones of the departed might be toler-



Fig. 49. (23684.) Full size.

ated until the "feast of the dead," an ossuary would not be a desirable adjunct to a village, peopling the nightly shadows already overburdened with spirits.

Notwithstanding that this site was discovered and despoiled over forty years ago, a large quantity of valuable material has during recent years found its way to the museum, while a considerable quantity still reposes in the cabinets of private collectors. The relics found prove this village to date from the French period. Iron tomahawks, French beads, fragments of brass kettles, etc., are found all over the place. Brass kettles are said to have been taken out in large numbers when the ossuary was first excavated, some sound enough to be used by the surrounding farmers. Numerous glass beads have been found here, of various sizes and colors, also wampum of both French and Indian make, catlinite beads of Indian manufacture, and beads, gorgets, and pendants of conch shell. Many interesting

relics have been picked up here. Mr. Jas. Heath made the discovery of a shell gorget, with a portion of what has been identified by Mr. Boyle as a conventionalized rattlesnake, engraved upon it—a pattern that has been found upon similar gorgets in the Southern States. This does not necessarily imply that the tribe was of southern origin, but indicates the extent of intertribal trade relations. A bone implement of uncertain use was also found. This was some eight or nine inches long, having a shaft and a leaf-shaped tip, with serrated edges, perforated in the middle. Clay pipes in various states of preservation have been discovered in considerable numbers. Not many stone pipes have been found of recent years, but large numbers are said to have been obtained here formerly. The clay pipes show some uniformity in pattern and ornamentation. The majority have short stems and conical bowls, ornamented with parallel lines. A few square-mouthed bowls, and some of other shapes, have also been found. Pottery fragments in great profusion were formerly to be gathered from all parts of the site, and from the creek bed on each side. A small clay cup or ladle was found by one man. The clay for the manufacture of pottery was at hand, in the bank of the creek, and on the neighboring hills, while the stream, with its dirty, brackish water, furnished the only supply for drinking and culinary purposes. Granite, burnt and pounded, was the material usually employed in tempering pottery, but at least one fair-sized piece has been found here where shell was used. Quite a number of harpoons of horn and bone have been obtained, showing that good fishing was to be had nearby. Large fish bones found in the ashes prove the same thing. Some of those found are of pike, mullet and catfish, all of which still frequent Mud Creek at certain seasons.

Large quantities of bones of all sorts lie scattered among the ashes here, and on the other sites. The identification of these forms an interesting study for the archaeological student, and throws considerable light on the domestic economy of the Neutrals. Another implement typical of this locality is the large disc-shaped stone, of which so many have been found. These stones are usually from four to six inches in diameter, and about one and a half inches in thickness, with a hollow pecked in the middle of each face. Stone pestles are, I believe, never found among these Neutral villages, and stone mortars very rarely, showing that wood was used for this purpose. A very large number of the chert implements called scrapers have been found on the sites in this district and in the fields. Many bone tubes, usually called beads, have also been collected on these sites. Some of these tubes bear tally-marks, and others have rude designs scratched upon them. Horn pins continue to crop up quite plentifully. These pins are cylindrical, and are nicely rounded at each end. The lengths vary greatly, and one end is usually slightly thicker than the other.

The Jesuit relations give the people of this nation the reputation of gamblers, yet nothing has been found that can be positively identified as devices for gambling, but if these consisted of

wood, or seeds, or fruit stones, we can readily account for the lack of such articles on the village-sites. The Jesuit Relations speak of the abundance of chestnuts found in the Neutral country. These are yet plentiful, especially east of here.

(2) Site on the farms of Bundy and Bodwell, back portion of lot 10, 1st range, S.H.R.

Across Mud Creek, and about five or six hundred yards southwest of the site on the Mitchell or Seeley place, is another village-site, indicated by ashbeds, mixed with fragments of the usual kinds, and showing some signs of contact with the French. This would place it, and others where French relics are found, in the first half of the seventeenth century, which marks in a general way the interval between the arrival of the French and the extinction of the Neutrals. Half a dozen ashbeds are visible in Mr. Bundy's field, and others are found in R. Bodwell's bush, where it is hard to count the exact number. Cultivation is gradually mixing the ashes with the surrounding soil, and will in a few years render the spots indistinguishable. This was possibly one of the villages which made the ossuary on the Mitchell farm.

(3) A small site exists at the back of the T. Ludlow (lot 11, 1st range, S.H.R.) and Ira Vanderlip farms, where the two meet. There are a few ashbeds in Mr. Ludlow's field, and two in Mrs. Ira Vanderlip's bush. A few very good relics have been collected here. At a recent visit a "hammer-stone" was found, two arrow-heads, some bones of deer, turtle, and other animals, a few strips of brass kettle and several pieces of decorated pottery. In connection with the pieces of old brass kettle, it may be noted that these were frequently cut into strips suitable for the manufacture of beads, rings, bracelets, pendants, and various articles of adornment. Some ornaments, thought to be of copper, may prove to be made from this material, which becomes of the same color as copper through oxidization. The situation here is high, and the soil light and well suited for Indian cultivation.

(4) A small site has been discovered on the farm of Andrew Westbrook, which is the fourth lot of the Westbrook block, 2nd range, S.H.R. Some half-dozen cabin sites are marked by dark patches in the soil, mixed with broken bones and other fragments. The situation of the village is on high ground, along a bend of the far spreading Mud Creek. A well-modelled fox's or wolf's head of pottery was found here. Some strips of brass have also been found, a portion of a square-bowled pipe, deer, and other bones, and some flint scrapers.

(5) Walker's, lot 10, con. 2, Onondaga Township. On the back of this farm a small ossuary was discovered eighteen or twenty years ago. In some unaccountable way this discovery dropped out of sight after a few excavations had been made, and nothing more was heard of it, until about ten years ago, when it was rediscovered by a collector, as a result of some remarks made by the owner of the farm regarding traces of Indian occupation on his property. A village-site, judging from the usual signs, was situ-

ated close by, and to be consistent with previous conclusions, this must also be regarded as belonging to a different period from that of the ossuary. This coincidence with the case of the Mitchell farm need not be a subject for wonder, when we consider that the district had quite a large Indian population, and that camp or village-sites were changed frequently, for reasons mentioned elsewhere. The ossuary is described as being about ten or twelve feet in diameter and six or seven feet deep. The number of skeletons contained was about a dozen. On the wrist of one skeleton a bracelet made of kettle brass was found, an evidence that this one, at least, was placed there before the bones were denuded of flesh. A coiled finger-ring, some beads and other ornaments, which might be easily mistaken for copper, are, in the writer's opinion, made from the same material. These ornaments are very well made, and no doubt at one time were very striking in appearance. A fine owl-pipe of clay was found in the course of the digging operations, having brass discs, with perforations in the centre set in for eyes. A dozen or more good pipes were found altogether, some of clay and some of stone. The clay pipes were of the usual type. One with a human face, having a conical head-dress, is like some found in Nottawasaga, the ancient country of the Tionnontates, or Tobacco nation. Another of stone was of a type met with in the Canadian Northwest. Several pipes were found made from a light-colored stone, having long, slender stems and bowls, and figures carved on the front. One small stone pipe had a lizard-like animal clasping the bowl. Several large shell gorgets were obtained, and a small slate gorget having a blue glass bead let into a hole on one side. Some of the most interesting remains, were those of materials which usually decay and disappear. If these relics belong to the Neutrals, which seems beyond dispute, their age must be two hundred and fifty years or more, as the ruin of this nation was completed by 1652 or 1653. This remarkable preservation of perishable articles may be accounted for by the dry situation, and the fine sandy soil, which would exclude the air. One brass kettle contained a mass of squash seeds and remnants of fur, which could be easily identified. Fragments of coarse cloth were turned up, showing the texture distinctly, also spoons or ladles, of both wood and bone. A whole pot and several imperfect ones were also rescued. There is no doubt that, if the excavations here had been under the supervision of an archaeologist, much more interesting material would have been preserved. The largest square-mouthed pipe yet noted was found here (No. 22779, Provincial Museum). A good skull (No. 23683) and a quantity of wampum were also obtained. The whole locality is still in bush, which consists of hardwood timber of large size. Many of them no doubt were growing at the time of the Feast of the Dead, now over two centuries and a half ago. The village at this place was fortunate in possessing a spring in the hillside, near the margin of Mud Creek. The conditions are much as we can imagine they were in ancient times; a small clearing, which scarcely dispels the forest shade, where the warbling of song-birds, and the cry of the hawk may still be heard. The red deer has followed many of its ancient companions, but the fox

yet steals along among the trees, and the raccoon, woodchuck and other small game still flourish in the fields and woods.

(6) The Lang and Dowling site, lots 4 and 5, 1st range, N.H.R.

In a quiet spot at the rear of a farm owned by J. Lang a small site is known to exist. A portion of the land is cultivated, and shows some four or five ashbeds, where quite a number of relics have been found. These consist of articles characteristic of the neighborhood, such as pipe-bowls, bone awls, wampum, catlinite and French beads, bones, pottery fragments and flints. Mr. James Heath found a spoon made from an animal's shoulder blade (see Fig. —), also some other articles now in the museum. The site is high and sandy, and was evidently in use for a number of years.

(7) Fonger's (formerly H. Book's), lot 50, con. 2, Brantford township.

A large site was found on this farm twenty years or more ago. It occupies some four or five acres on the banks of a small stream running into Fairchild's Creek. The land, which was until recently a bush, is now being prepared for cultivation. Corn hills are said to have been observed on a neighboring hillside. A large quantity of relics has been picked up here, but is scattered among numerous so-called collectors, many of whom are merely greedy relic-hunters and curiosity-mongers. No reasonable offer from any Canadian institution is capable of tempting this class of people to allow their collections to be placed where they will benefit the public. The large quantity of relics obtained at this place may have some connection with the Iroquois raids, which finally destroyed all of these peaceful villages.

(8) Byron's, lot 44, con. 1, Brantford Township.

A small site, scattered over two or three acres, is situated here. Quite a number of relics of the usual type have been gathered by various collectors. The ashbeds are fast becoming indistinguishable through cultivation. The village was situated on rising ground, not far from Fairchild's Creek, and was evidently occupied for a few years.

(9) C. Kitchen's, lot 36, con. 1. Brantford Township.

Another small site is located on this farm. The remains do not present any unusual features. The situation, as usual, is on high ground, and the soil is sandy. This site is much farther from the creek or river than the others, but was evidently a Neutral camp for a period long enough to render the site recognizable.

(10) A site has been found on the farm occupied for many years by R. Porteous, dairyman, and best known from this fact. The farm is just past the eastern end of Mohawk Lake, on the south side of the road. The Indian village was on a slope facing the river, and about one hundred yards from it. Flints and pottery are plentiful all along the river bank between Cainsville and Brantford, and also along the river west of the city. The principal places of this kind will be found marked on the accompanying map. A workshop, or place where flints were made, was found by the

writer not far from the last mentioned village-site. Here was a large quantity of flint chips and many arrowheads and other implements in various stages of manufacture. The village-site is indicated by four or five ashbeds. The fragments found prove the village to have belonged to the Attiwandarons or Neutrals. Cultivation is rapidly rendering this site unrecognizable, although a few years ago it was quite plain.

(11) Mr. Hartley Turner, of Brantford, informs me that he is acquainted with the location of a small village-site on Mr. Henry's farm, just south-west of the Mohawk Church, near Brantford. This was near the road and on the bank of a small stream. A few relics have been picked up there. Cultivation has now almost obliterated all traces of the two or three ashbeds that formerly existed.

Trails, etc.—The location, or disposition, of the village-sites in the eastern portion of Brantford Township makes it evident that they were connected by a trail, with various branches and deviations, running from north-east to south-west. There is little in the configuration of the country here to guide us, but we may be certain that this trail ran, in a general way, parallel with Fairchild's Creek, and crossed it on con. 1. Another trail ran parallel with the Grand River along its north bank, while the south bank shows many indications of being a line of Indian travel. Canoes were, of course, made use of to some extent, but we have reason to believe that the Neutrals were not pre-eminent as boatmen. We are assisted in locating these trails by the flints, pottery and other fragmentary evidence scattered through the fields. The road from Onondaga which runs east of Fairchild's Creek to Langford, and leads by one fork to Cainsville, has been a highway for Six Nation travel during the period dating from the settlement of the country by the whites, and was possibly in the first instance an Indian trail. The Hamilton road, running east and west, is reputed to have originated in an Indian trail, becoming next a settlers' road, and finally a well-graded road for public travel.

The Villages of the Missionaries.—As to the relation which the foregoing villages bear to those visited by the Jesuits, Breboeuf and Chaumonot, in 1640-1641, it is evident from the Relations that Kandoucho, or All Saints, cannot be claimed by Brant County. Lalemant states that they travelled all the time directly south after leaving the Huron country, during the first stage of their journey. It was no doubt difficult for them to estimate distances with accuracy, but it must have been comparatively easy to note direction.

The location of Kandoucho may have been correctly named by Mr. Harvey (Toronto Mail, Dec. 11th, 1885) as one of those at Lake Medad in Halton County, as this lies almost directly south from the country of the Hurons. It also occupies approximately a halfway position between the Huron country and the Niagara River, which also agrees with Lalemant's statement. This writer states the distance as forty leagues to the first village, and no doubt the journey over a rough trail seemed that length to the weary priests, but a reference to the map of Ontario will show

that the whole distance from the site of St. Mary-on-the-Wye to the mouth of the Niagara is no more than sixty leagues, so that this estimate of the distance must be incorrect. More reliance may be placed on comparative distances, so that we may still look upon Kandoucho as occupying a halfway position.

The chief village of the mission, Notre Dame des Anges, was probably that of the head chief Tsohahissen, where a long stay was made, waiting for his return and sanction to their labors. Sanson places this on the west side of the Grand River, near Brantford. At the present time no large site is known to be situated on the west or south-west side until we arrive at White-man's Creek, where a good-sized village is known to have been situated. This is not opposite Brantford, but is north and west of the city. Sanson's reference may have been to this site, but it is possible that the position of the village was indicated in a general way only. In such a case, a strong candidate for this distinction is to be found in the Mitchell or Seeley site, situated seven miles south-east of Brantford, both on account of its large size and the plentiful evidences of French contact. Teotongniaton or St. Guillaume, the place where the missionaries were befriended by a kind-hearted squaw while on their dismal return, was possibly where Mr. A. F. Hunter considers it likely to have been, viz., lot 12, con. 7, Township of Beverly, as, according to the Relations, it should be halfway between Kandoucho and the village of Tsohahissen.*

Respecting this spot, see also History of the Catholic Church in the Niagara Peninsula, by Dean W. R. Harris, D.D., appendix B., page 339.

MALAHIDE, YARMOUTH AND BAYHAM TOWNSHIPS.

By R. T. Anderson.

This region was inhabited by the Attiwandarons or Neutrals, who controlled the immense supplies of flint found along the east end of Lake Erie. As it was impossible for the Iroquois and the Hurons to carry on war with each other without a supply of flint for weapons, the Attiwandarons were permitted to remain Neutral during the bloody Huron-Iroquois wars, and hence the absence of large ossuaries in this district. In only a very few instances have a number of skeletons been found together. Some years ago, while removing earth during the making of a lane on the Luton farm, just south of Mapleton, lot 17, con. 10, Yarmouth Township, a number of crania were uncovered. Also at the "Old Fort," townline of Bayham and Malahide Townships, several skulls have been ploughed up in the neighborhood of the earthwork. Most of the graves contain but one or two skeletons.

*In the Archaeological Report for 1897-8, p. 32, Mr. Boyle, writing of what is known as The Jesuit Stone, says it was "Found on lot 24, con. 5, Township of Vaughan, and County of York. We know of no Europeans who were in this part of the country at that time (1641), except Breboeuf and Chaumonot, who, in the spring of that year returned from a fruitless mission, and were then on their way to Ste. Marie (on the Wye).

"The exact route followed is uncertain, but there seems to be some reason for the belief that not far from where this stone was found stood the Indian lodge mentioned in the Relations as the asylum of the well-nigh famished priests on their homeward journey."

As the usual method of burial among the aborigines was to expose the bodies on scaffolds until the bones were bleached, these being then gathered together into a common grave or pit, the occurrence of single graves may point to Jesuit contact and influence.

Since writing the above I received a letter from Mr. Geo. R.

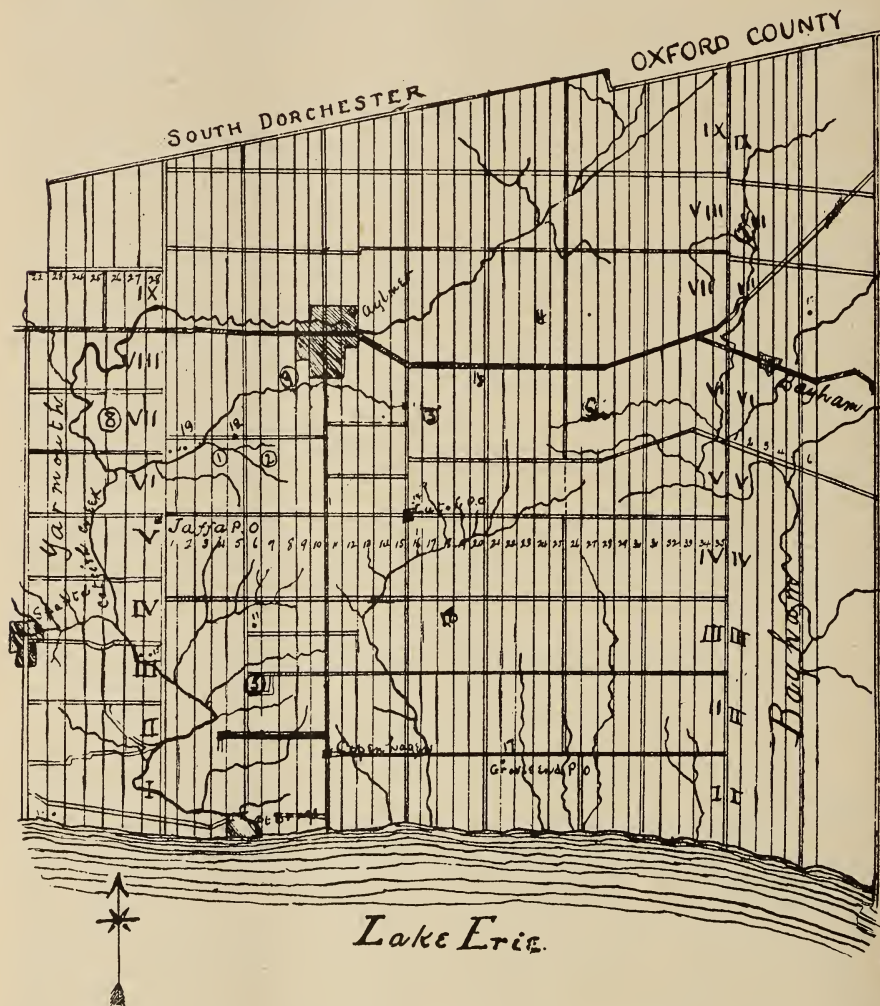


Fig. 50. Map of the Township of Malahide, Elgin County. (With part of Yarmouth and Bayham Townships.)

Luton, of Trinity Medical College, Toronto, containing the following information about the finding of the skulls near Mapleton:

"About twenty years ago, while making a cut for a lane or driveway, my father and uncle came upon a large number of skeletons. As far as I could learn, they were from four to six feet below the surface, the position being a very gravelly hill. The bones were in various states of preservation. About twenty-five crania were unearthed, along with other bones, which they were not particular to remove. Many of the crania were large, yet

there were some apparently belonging to younger individuals. The teeth were intact in many, and the femurs and humeri showed signs of great muscular development in the subject. In this pit they also found arrowheads, skinning stones and various other stone implements.

"Then, about ten years ago, I remember my grandfather digging up a cedar tree which stood in the way. He did not go down over five feet, yet I saw, myself, several crania and other bones, which were in a good state of preservation. The hole was not over six feet in diameter at the top and about three feet at the bottom. I remember three crania (intact) and numerous other bones being taken from it. There were also stones in the hole. The earth is gravel and sand at this spot."

Flint, or, more correctly, chert, as flint does not occur in this country, is found in nodules in limestone, and is the remains of silicious material, such as spicules of sponges, etc. These nodules vary in size, some being quite small, others large enough to make half a dozen or more arrowheads. This chert was either shaped at the quarry into rough pieces of leaflike forms, from

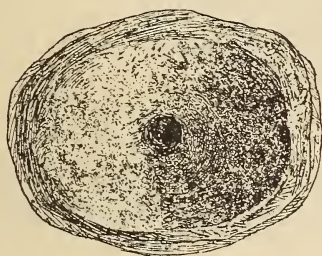


Fig. 51, (24739) full size.



Fig. 52.

which arrowheads, spearheads and various implements could afterwards be made, or, if the nodules were small, they were carried to the villages and there finished. Frequently, in or near camping sites, portions of chert nodules are found. At Point Abino, Welland County, is one of these aboriginal chert quarries. It is an interesting fact that flint relics in Western and Central New York can be traced to these Lake Erie deposits. Chert relics are abundant in this region, and can be best illustrated by reference to some of the different classes found. We may divide these roughly into four classes: (1) drills, (2) leaf implements, (3) scrapers, (4) miscellaneous implements. Huronian slate is a material which was much used in the manufacture of ornamental and ceremonial relics, being well adapted for these objects, but too soft for implements. This Huronian slate is the "pipestone" of the modern Indians, being used at such places as Fort Francis, although it is far from as nicely stratified as that found in some of the banner-stones of the aboriginals. Figs. 51 and 52 give two views of a Huronian slate drill-rest, or what we may suppose to be such. Its rounded exterior form would render it suitable for being held in or pressed by the palm of the hand, while the small hollow in the middle of the larger one may have served to hold the upper

end of the drill-shaft. It was found on lot 23, con. 1, Yarmouth Township.

The gorgets are of this slate, but vary a great deal in size, shape, number of holes, etc. These gorgets were peculiar to the Neutrals. They are surface finds in Ontario, and are not found north of a line drawn from Toronto to Goderich. They may antedate the flint relics of our region.



Fig. 53. Full size.

Banner-stones, supposed to be ceremonial objects, are also made of Huronian slate. Fig. 53 (24843) is a so-called "one-armed" banner-stone. The holes in these are always oval.

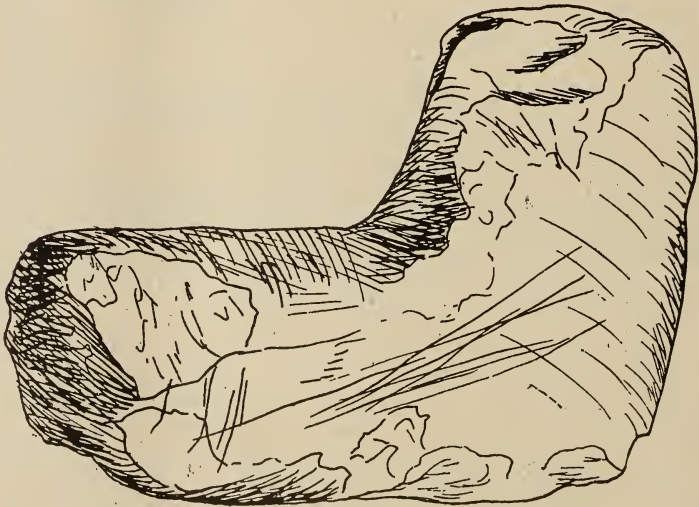


Fig. 54. Full size.

Stone pipes are not very common. Some good specimens have been found on location 19, of which the best were in the collection of the late Dr. Tweedale.* Fig. 54 shows an unfinished

* These are now in the Provincial Museum.

slate pipe, which has been rejected on account of the slate splitting.

Other stone relics found in the camp sites were pendants. These were usually made of bluish slate, more or less oval in outline, and having a hole drilled near one end. Nearly every camp site contains them. Fig. 55 represents a peculiar slate

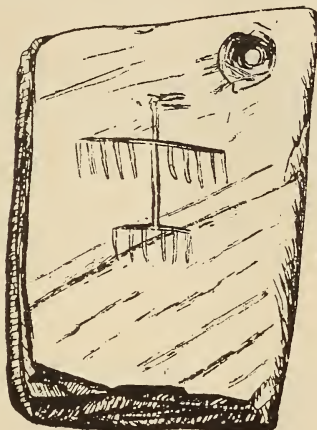


Fig. 55. Full size.

“totem” found in site No. 7. A piece of shell wampum which seems to be very scarce in the sites examined, and a comb-like bone pottery marker were found on site No. 1. See fig. 56.

Bone instruments are frequently found, bone awls especially being common on all sites, they are mostly made of splin-

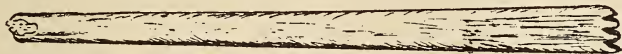


Fig. 56. Full size.

ters of deer leg-bones; some have begun to crumble, others are as solid as when they were made. Figs. 57-59 (24715) is a well-preserved specimen, of which three views are given; may also have

Fig. 57. (Full size.)



Fig. 58. (Full size.)



Fig. 59. (Full size.)



been used as a tally. Many pieces of deer horn and other bones have been cut off to make beads, etc. Besides beads, pins were made from the deer horn, and these are found in most of the sites. Fig. 60 represents one of unusually large size. The use of these pins is unknown.

Unio shells are common in all the heaps, many of them crumbling easily, owing to partial calcining. Some of the empty

shells were used as pottery slicks, others were used to scrape out the cooking vessels, and are worn on the outside edge. These valves are principally of *unio complanatus*, the commonest *unio* in our ponds and slow streams at the present time.

Clay pipes, mostly broken, are found in all the sites. These are of various shapes, and show all variations, from a plain bowl to quite elaborate designs. In making these pipes one of the diffi-

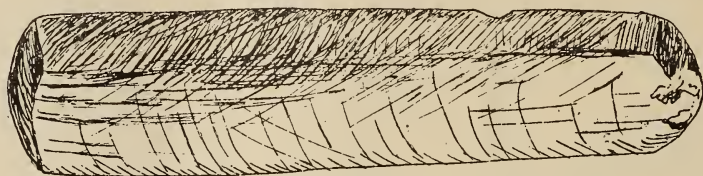


Fig. 60. Full size.

culties was to get the hole through the stem. This was effected by modelling the stem around a flexible twig, or a thong, which was destroyed during the baking of the pipe. The general shape of the stems was round and tapering; others were flat and more massive. Fig. 61 is square in cross-section, and the ornamentation is prolonged down the stem.

Pottery is the most characteristic relic of the camping-site, and will always be one of the most interesting things that the aborigines have left us, for with the advent of European vessels, the art of pottery-making vanished, and as vessels of Indian make were easily broken, very few perfect ones are to be found. We learn from these few, and the great numbers of fragments found in the village-sites, that the general shape of the vessels found in Ontario was that of a round-bottomed, wide-mouthed vase, often with a lug or ear. The advantages of a round-bottomed vessel were strength, and the fact that they stood more steadily in a hollow on the Indian table—the ground.

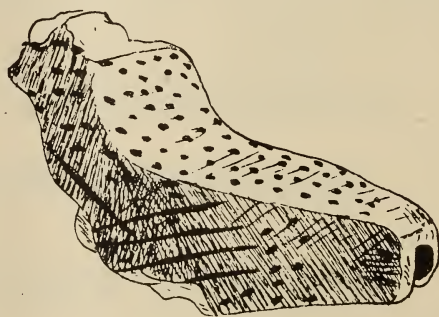
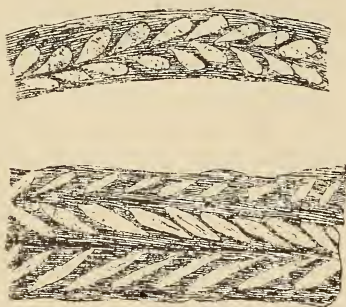


Fig. 61. (Full size.)

The material of which pottery was made consisted of clay, mixed with burnt or decomposed granite or gneiss, the constituents of which, feldspar, mica and quartz, may be clearly seen in many of the fragments. It is largely due to this that the pottery crumbles so easily in damp ground. In the manufacturing of a vessel, water was added to the mixture, making a dough, and

this was moulded in layers, shaped and smoothed by means of paddle-like tools and clam-shells. The ornamental markings are confined principally to the outside surface of the neck. A very few pieces have markings on the inside of the mouth or on the main body of the bowl outside. These were made by means of such instruments as shown in Fig. 56, by sharp pieces of bone, and even by the thumb nail. One piece shows impressions of fingertips, where the artist has evidently pressed on the plastic vessel while punching the "bosses" from the inside. Many of the fragments are of almost uniform thickness, from a fourth to three-fourths of an inch. The markings are mainly dots and straight lines, but a few pieces from site 1 are interesting, in that they show an advance on these primitive designs. In one of these the



Figs. 62-63, (24830). (Full size.)

markings are crescent-shaped. Figs. 62-63 (24830) show unusual markings, the design on the rim resembling a spray of leaves. This is a decidedly unique design, and probably the nearest approach to the representation of plant life hitherto found on such pottery in this Province.

Animal Remains.

One of the most interesting branches of study, and one that has been too long overlooked, is that of the animal remains found in the sites. From a study of the bones in such places, many valuable facts can be learned in connection with the animals used as food, and their relative bundance. The following is a list of the species found in sites 1 to 4. This list is by no means complete, as many of the places have been dug over several times, and, as usually happens, no attention having been paid to the animal remains, many of them are destroyed or lost.

Unio complanatus: Specimens of this species are found in nearly all the sites, and no doubt it formed one of the staple articles of food. Many of the valves are partially calcined, while others are worn with use as scrapers and as pottery slicks.

Salmon Trout (Salmo namaycush): A large vertebra four-fifths of an inch in diameter is probably of this species. The fish to which it belonged must have been over eighty pounds.

Channel Catfish (Ictalurus punctatus): This is the commonest species of fish found in camp sites in this locality. At the present time they run up the Catfish Creek at Port Bruce in large numbers. Dentary bones, hard rays, and cranial bones occur most frequently. Many of these are from large specimens.

Pickereel (*Stizostedion canadense*): Two dentary bones of this genus are from site 1. It is one of the most abundant fish in Lake Erie at present.

Mud Turtle (*Chrysemys picta*): Broken pieces of the carapace were found in site 1. It is a very common species in the ponds around this site.

Snapping Turtle (*Chelydra serpentina*): Costal plates occur in site 1. This species is also very common in the township, and is often found on land, or on the margin of ponds and streams, so that it was no doubt frequently obtained by the Indians. A humerus was also found, which was worn smooth around the middle, having probably been worn attached to a thong.

Ruffed Grouse (*Bonasa umbellus*): Three tibial bones and a fragment of the sternum (probably of this species) were found.

Wild Turkey (*Meleagris gallipavo*): A cervical vertebra and the distal part of a radius and ulna from site 1. Also a sternum.

Beaver (*Castor fiber*): A tibia of this species from a very large specimen, and also the proximal portion of an ulna from site 1.

Ground Hog (*Arctomys monax*): Lower jaws found in several of the sites.

Raccoon (*Procyon lator*): Several jaws and the proximal end of an ulna from site 1.

Black Squirrel (*Sciurus carolinensis*): Many lower jaws of this species occur in the various sites. The squirrel is still fairly common in the district. An ulna probably of the same species was also found.

Dog (*Canis domesticus*): The anterior part of a skull was found in site 3.

Deer (*Cariacus virginianus*): The bones of this species are the commonest in these sites. Vertebrae, horns, pieces of crania, phalangeal bones, broken jaws and teeth are the ones most frequently found. Many of the horns are of large size, some of them having been cut off the skull, while others have still a little of the cranium fastened to them. The phalangeal bones were used for beads, and are found in all stages of construction. The leg bones were used for awls and other instruments. The skulls and jaws are all broken, the pieces of the jaw rarely being over two or three inches in length.

Moose (*Alce americanus*): A number of heads of bones, probably of this species, were found in one site.

Black bear (*Ursus americanus*): Bones of this animal are common. One portion of a humerus, seven inches long, is from a very large animal. Canine teeth occur frequently.

Lynx (*Lynx canadensis*): A leg bone doubtfully referred to this species was found.

Indian: In site 6 was found part of the frontal bone of a human subject (25056). It will be interesting to determine to what extent human bones are found in the camping sites.

Village Sites.

No. 1.—This site, by far the largest in the district, is situated on the north-west quarter of lot. 4, con. 5, Malahide. There are at least twelve camping-sites, mostly of considerable size, and all placed on a level sand ridge which lies between two spring creeks. It would have been difficult to find a better site than this one was, situated on the bank of a fair-sized spring creek, which emptied into the Catfish, a mile to the west, thus forming a continuous water route to Lake Erie. The ridge was originally covered with large white pines; in fact, just west of the site, on the same lot, many of the pines are still standing, the only remnant of the once dense pine forests of this district. The immediate neighborhood of the village site has been cleared off at one time, but has grown up since with second-growth white pine, hawthorn and white oak, varying in diameter from four to twelve inches. The old pine stumps are still undisturbed, and give us some idea of the age of the site. The stumps as they stand, without bark or sap wood, measure from nine to twenty-five inches in diameter, there being about twelve on the different camp sites.

As ashes, pottery, bones, etc., are found under the crowns of these stumps, it is evident that the sites were occupied before the trees grew on them. Beneath one of them the remains of a clay vessel were found, lying in a circle, just as it had fallen to pieces. These are now in the Provincial Museum, and may be put together. That the camp-sites were used for a long period is shown by the depth of the refuse accumulation, the great number of fish, deer and other bones, and the large quantity of broken pottery. All the larger camp-sites have an elevation of from four to sixteen inches. No. 1 may be taken as a type. This is dome-shaped, circular, and about fifteen feet in diameter, the earth is black, with here and there traces of ashes, containing pieces of charcoal. A bed of ashes at a depth of sixteen inches was two feet in diameter, and had never been disturbed, the ashes being so hard that it was difficult to cut them with a shovel. Near the edge the pottery was at a depth of eight inches. There were also worn unio shells, deer teeth, horn and bones, black squirrel jaws, spines of channel catfish, bone awls, pieces of clay pipes, flint chips, and fire-cracked stones. In addition to these, in the other sites were found a few small flint arrowheads, horn pins, flint scrapers, a number of worked pieces of deer horn, bone awls, and slate pendants. An interesting relic, and one that gives us some idea of the force with which an arrow could be driven, is a post cervical vertebra of a red deer, which has a broken flint tip embedded in it. A short distance to the north-east of this site, Mr. Leonard Powers, while grading the fifth concession across lot 5, fourteen years ago, levelled several camp-sites (location 12. Fig. 50) which contained pieces of pottery, fish bones, skulls of animals, etc.

Site No. 2, east half of lot 7, and west side of lot 8, con. 5, Malahide.—Site No. 2 is about one mile east of site 1, on a sandy ridge, which lies between two forks of the spring creek, flowing

past site 1. In these ash heaps are the same kind of relics as in site 1. A perfect, large-sized clay vessel was taken out of one of the heaps on lot 8. This vessel is now in a private collection.

The neighborhood of these spring creeks seems to have been a favorite camping and hunting ground. Between sites 1 and 2, 1 and 8, 2 and 9, a great many arrowheads and some celts have been picked up.

Site No. 3.—This site is situated on concession 6, about two miles east of Aylmer. This is the highest location in the township. About three-quarters of a mile to the north is the "Big Cedar Swamp," the intervening space being originally covered with a dense pine forests. The ridge forms a watershed, and judging from the remnants of the hardwood forest, was once thickly covered with timber. Within the memory of the present owner, there were a number of springs in the neighborhood of the site, but these have disappeared with the forest.

There are two main camp sites, one situated in the edge of the hardwood on lot 18, the other just over the line fence to the north-west, on lot 17. The principal site on lot 18 is about twenty-five feet in diameter, and, with the smaller sites, is covered with large hard maples. Two large clay vessels have been found here, neither of which survived the "finding." One, found by some boys while digging for relics, was broken to pieces in their haste to get it out. The other, which had a capacity of from one to one and a half bushels, was dug out complete, but crumbled on exposure to the atmosphere. In addition to the usual bones, pottery, etc., there are a few things of interest. The first of these is a piece of pottery, the markings on which have been made by a serrated marker. Two pieces of large clay pipe bowls have interesting types of designing. Other fragments of pottery show incrustations of burnt food.

To the north of the camp-sites, which are about the centre of the lots, is a sandy field, situated on the slope of the ridge, and containing a small hill. In this field many arrowheads and celts have been found. Mr. Huffman has also found four or five complete skulls and the larger bones of the skeletons.

Several graves have been found on this ridge, Mr. S. S. Harper while excavating for a foundation on lot 20 (Location 16), found a large skeleton and part of a small one, at a depth of three and a half feet. On the south end of lot 16, con. 5 (Location 14), Mr. W. Brown uncovered two skeletons in his gravel pit at about the same depth. The larger, an adult male (judging from the skull about eighty years old), was almost complete, the larger bones only of the smaller skeleton (a child) were intact. At the time that Mr. Brown found the skeletons the writer was unable to go out to see them, but afterwards obtained the skull of the adult—all that remained. This skull (24842), which is about the limit of the brachycephalic type in width, is interesting from the fact that the molars in the right upper jaw were lost during the life of the individual and the bone healed over. The wormian bones on the cranium are very distinct.

Site No. 4.—This site is about the centre of lot 24, concession 7, Malabide, situated on the brow of a low ridge overlooking an

elm flat, it has an elevation of about six feet. The ridge is still covered with hardwood, and from the size of these trees some idea as to the limit of age of the site can be formed, as several of the trees are growing over and have their roots penetrating the ashes beds. The site is oblong in shape, about 66 by 25 feet, the longer axis lying north and south. It has been dug over several times, but some spots were found which were as yet undisturbed. The highest places are at the two ends. On the north-west boundary is a large black cherry (*Prunus serotina*) eighteen inches in diameter. Among the roots of this tree were pottery sherds and flakes of flint. Just a few feet to the north-east of this tree at a depth of four inches below the surface, part of the bowl of a massive clay pipe was dug up. This pipe (24752) has originally been two inches in diameter. On the top edge it has a thickness of one-fifth inch, while near the centre it is three-fifths of an inch thick. The markings, parallel slanting lines, are fine and somewhat indistinct. A row of markings, which has been made by a circular marker, occurs one inch from the top.

Near this another interesting relic was found, viz., a horn bead (24754) drilled at both ends, but not yet completed. The ash beds in the north end are about twelve inches below the surface. At another place pottery mixed with charcoal was unearthed. Near the centre of the site a large red oak, originally about two and a half feet in diameter, has lain until it is nearly all rotted. Beside this stands a group of three sugar-maples (*Acer saccharinum*), 8, 5 and 12 inches in diameter, which have grown on the top of the ash heaps. At this point the bottom of the deposit is two feet below the surface. Another sugar maple just south of the centre is nine inches thick, its roots penetrating an ashbed which has a quantity of charcoal scattered through it.

The pottery is nearly all badly disintegrated owing to the dampness of the soil and the fact that it has a greater proportion of ground rock than is usual, thus increasing its friability. There are in addition the usual deer bones and horns, bone awls, fire-cracked stones and fragments of clay pipes.

Village-site No. 5.—This site is on lot 6, concession 2, Malahide, about two miles north of Lake Erie, and about one mile east of Catfish Creek. A short distance north of the site is a deep gully through which a tributary of the Catfish flows. Until about thirty-five years ago there was a large spring on the south boundary of the camping-ground. The site covers three or four acres, the camping sites being in the form of a semicircle. On the north boundary were the remains of a number of graves, but owing to the sandy nature of the soil, which permits the water to filter through, the bones were so disintegrated that only traces could be found, any solid parts easily crumbling in the fingers. When the field containing this site was first cultivated, pottery and other relics were so abundant that the owner, Mr. John J. Gillett piled them up out of the way. At present the black earth marking the camping spots is quite shallow and would lead one to infer that this was only a temporary habitation. Through the kindness of Mr. Gillett the writer has received from time to time

during the last four years the relics which have been found while cultivating.* One of the most interesting of these is an unfinished stone pipe, 24833. The material is limestone and has been worked into the shape desired, and drilling commenced at the top of the bowl and at the stem end. The total length is four and four-fifth inches. The circumference of the bowl is the same. The hole in the stem is only one-tenth of an inch deep, while that in the bowl has been drilled three-fourths of an inch and then abandoned owing to the hole going so far off the centre. This piece is very much weathered, and small crinoid stems, brachiopods and corals appear distinctly on the surface. Celts occur quite abundantly on this site, ranging from very small (one of the smallest being about two inches in length and jet black) to large ones of bluish-black stone.

Village-site No. 6.—Site 6 is situated about a mile and a half south and a little east of site 4. Mr. Westover had just cleared the field in which the camp sites occur, and hence they were as yet very little disturbed. There are seven in all, ranging in size from ten feet in diameter (No. 1) to sixty by thirty feet (No. 6). The following table gives the relative dimensions and depth of the deposits :

No.	Size.	Depth of Deposit.
1.....	27 x 27 ft.	22 in.
2.....	27 x 21 "	20 "
3.....	27 x 18 "	18 "
4.....	12 x 12 "	18 "
5.....	33 x 18 "	7 "
6.....	60 x 30 "	16 "
7.....	10 x 10 "	8 "

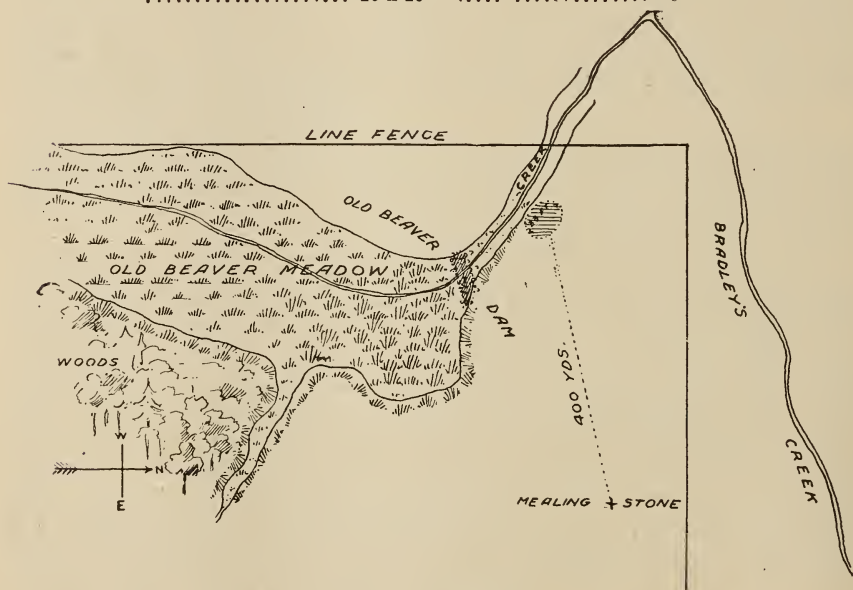


Fig. 64. Site 9, Malahide.

The usual pottery fragments, bones, cracked stones and flint chips were found.

*Most of these are now in the Provincial Museum.

Village-site No. 7.—This site is just east of the town-line between Malahide and Bayham, part being on lot 1, the remainder on lot 2. The part on lot 1 is still in the woods, on one of the highest elevations, but has been dug over several times. This part consists of one large camp-site, 36 x 40 feet, with a deposit of 18 inches in depth, and having fragments of pottery, broken bones and charcoal scattered through the ashes and discolored earth. A large pine stump, 2 1-2 feet in diameter, stands on the north-east edge. To the west one hundred and fifty yards distant is a creek. The main part of the site is just over the line fence on lot 2. Here there are four camp-sites with a depth ranging from ten to sixteen inches, and with similar contents. Mr. Thomas Moore, while stumping lately on his lot found a human lower jaw-bone and a bone awl under a three-foot pine stump, also ashes under a 16-inch beech. To the south of this site lies the old fort, a long earthwork, near which a number of skulls have been unearthed in ploughing.



Fig. 65. Rough sketch of Mealing Stone.

Village-site No. 8.—Site 8 lies to the north-west of site 1, and in the next township (Yarmouth) one large camp on the farm of Mr. Joseph Bradt, lot 26, con. 7, has two large walnut trees on it, one of which has evidently been used at some time in its life as a back for a fire. On lot 25 there is a chain of camping-sites along the brow of the gully, a cluster of three lying just behind this row. This site brings us to the banks of the Catfish Creek, which

runs through Malahide township into Yarmouth, and finally empties into Lake Erie at Port Bruce in Malahide. All along the banks of this stream many relics are found, showing that it was a favorite locality with the Indians.

Site 9, Lot 8, con. 6, Malahide.—The location is on the farm of Mr. George Brown on the outskirts of the town of Aylmer. The field where the camp occurs has been in cultivation for years. There is the usual deposit of ashes and discolored earth about eight inches deep. The material consists of broken pottery, bones, etc. The most interesting feature of this site is the presence of a mealing stone four hundred yards from the camping-site. (See fig. 64.) This stone is about three by three and a half feet, and has a number of pits. (Fig. 65.) Village-site No. 2 is situated south of this in the next concession, between two other spring creeks.

Sites also occur at locations 17 and 18, Fig. 1. The contents of these heaps are of the same character as those already described.

IDENTIFICATION OF ST. IGNACE II. AND OF EKARENNIONDI.

BY REV. A. E. JONES, S.J.

Our tour of exploration of August, 1902, resulted:

1. In definitively determining the location of the old Huron Village of St. Ignace II., where Brébeuf and Lalemant were tortured to death, March 16 and 17, 1649;

2. In discovering the "Rock that stands out," *Ekarenniondi*, from which the Petun Village of St. Mathias took its name. The position of this place gives us a clue to the whereabouts of *Etharita*, the Petun Village of St. Jean, where Fr. Charles Garnier was done to death by the Iroquois, Dec. 7, 1649.

I.

IDENTIFICATION OF THE SITE OF ST. IGNACE II.

To answer off-hand, in a word or two, the question: "What makes you so sure that you have found the site of St. Ignace II.?" is no easy matter. To satisfy fully those of an enquiring turn of mind, I must proceed with method, and, in answer to the question, formulate a thesis which I hope to make clear and acceptable:

East half lot 4, concession VII., Tay township, is absolutely the only spot,

1. Where the configuration of the ground tallies perfectly with the description of St. Ignace II., given in the Relations and in Bressani,

2. Which at the same time lies at the proper distance, and

3. In the right direction from Ste. Marie I. (The Old Fort).

Configuration of the Ground.

RELATIONS. St. Ignace II. "was enclosed with a palisade of posts fifteen or sixteen feet high, and encircled by a deep depression [in the land], with which nature had powerfully fortified the place on three sides, leaving but a small space weaker than the other sides. It was through that part that the enemy, at early dawn, forced an entrance, but with such stealth and suddenness that he was master of the position before any attempt at defence was made, for the inhabitants were sound asleep, nor had they time to take in the situation."—*Rel. 1649, p. 10, col. 2, line 10 et ss.*

So, that as a place of defence, the site was not merely strong, but *powerfully* so, and those who visit the Campbell Farm, the lot in question, are immediately struck with its perfect conformity to the foregoing description.

More meagre of detail as to the conformation of the ground, Bressani's narrative is stronger in expression as to its powers of resistance :

BRESSANI. "So stealthily did they [the Iroquois] make their way through the forests, that, at the break of day, on March 16, without having so far betrayed their approach, they reached the gates of the first village of the Hurons, named St. Ignace.

"Its site and the fortifications constructed thereon at our instigation, rendered it impregnable, at least for savages. But as its inhabitants were taken unawares, while the bulk of their braves were abroad, some bent on ascertaining if the enemy had already taken the field, others to engage in the hunt, the Iroquois easily managed to approach under cover of darkness, and, at dawn, as we have said, to effect a breach while the inhabitants were still fast asleep."—

Martin's French translation, 1852, p. 252, line 11 et ss.

West half lot 11, concession VI. has been suggested as the probable site of St. Ignace II. Not to mention its being but one league from the Old Fort, while St. Ignace II. was double that distance from Ste. Marie I., it is comparatively but a low-lying field, encircled, if you will, on three sides by the windings of Hogg River, but all resemblance to the site of St. Ignace II. stops there. Though strong as a position, were it palisaded, it could never be said to be *powerfully* fortified by nature, and much less could it be termed *impregnable*. It is doubtless the once fortified site of St. Louis, and it afforded shelter, especially in 1648 and 1649, to the inhabitants of the outlying settlement of the same village, situated across the little stream on lots 10 and 11, east halves of concession VI. and west halves of concession VII. In fact, the inset map of Ducreux sets down St. Louis to the east of what is now Hogg River, which on that map is the first stream counting from the one on which Ste. Marie was built, and which is now known as the Wye.

One of the reasons given for supposing the remains found on lot 15, con. IV. to be those of St. Louis (preposterously close to Ste. Marie I.) was, if placed elsewhere, the assumed impossibility of seeing the flames of the burning wigwams from the Fort, owing to intervening hills. The truth of the matter is, that the vista between the hills

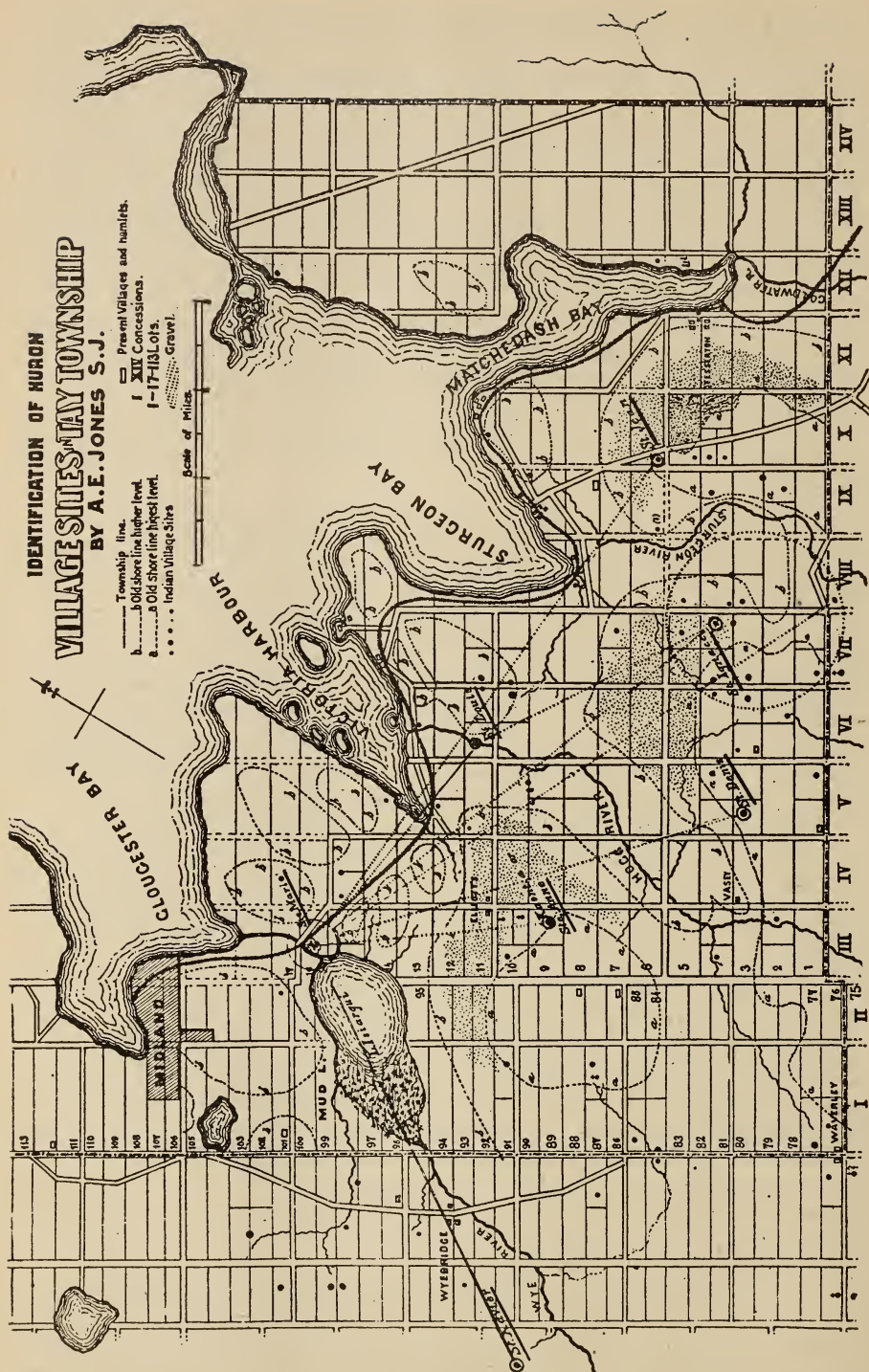
IDENTIFICATION OF HURON

VILLAGES IN TAY TOWNSHIP

BY A. E. JONES S. J.

- Township line.
- Old shore line higher level.
- Old shore line highest level.
- Indian Village Sites.
- Present Villages and hamlets.
- I XIV Concessions.
- I-17-13 LOTS.
- Gravel.

Scale of Miles.



extends not only to Victoria Harbour, but beyond, and as far as lot 11, con. VI.; so that the view is quite as much unimpeded as far as the site on Hogg River, as it would be were the site but a short quarter of a league from Ste. Marie I.

The Correct Distance from Ste. Marie I.

In the light of the old records, no reasonable doubt can be entertained as to the distance of St. Ignace II. from St. Marie I. St. Louis was about one league from St. Marie I., and St. Ignace II. was about the same distance from St. Louis, the three villages lying not quite in a straight line, but giving a total distance from St. Ignace II. to Ste. Marie I. of two full leagues.

Distance of St. Ignace II. to St. Louis.

BRESSANI. "Three persons only managed to escape [from St. Ignace II.] half-naked, and they hastened to warn the neighbouring village of St. Louis, only three miles distant."—*Martin's French Translation p. 254.*

RELATIONS. "Three men only managed to escape all but naked through the snow, and spread alarm and dismay through a neighbouring village [St. Louis] about one league distant. This first village [mentioned some lines above as the first to be attacked] is the one we call St. Ignace."—*Rel. 1649, p. 10, 2 col., line 30 et ss.*

GARNIER. "When the enemy [at St. Louis] took them [the two Fathers] prisoners, they brought them to their fort, distant a league or thereabout, and made them suffer every kind of torture."—*Letter of Fr. Charles Garnier to his brother Henry, Apr. 25, 1649.*

That Brébeuf and Lalemant were taken at St. Louis is evident enough, while the following passage from the Relations renders intelligible the expression "their fort" when applied by Garnier to St Ignace II.:

"As soon as the Iroquois had dealt their blow, and reduced to ashes the village of St. Louis * they retraced their steps to St. Ignace, where they had left a strong garrison, so as to assure a safe retreat in case of mishap, and to secure the stores they had found there, which were to serve as refecation and supplies on their journey homeward." *Rel. 1649, p. 11, col. 2, line 41, et ss.* We have, consequently, the best authority for saying that St. Ignace II. was about one league from St. Louis.

Distance of St. Louis from Ste. Marie I.

RELATIONS. "The enemy did not stop at this [the sacking of St. Ignace] but followed up their victory; and before sunrise their armed bands appeared before the village of St. Louis, *Rel. 1649, p. 10, col. 2, line 44.* . . . About 9 in the forenoon from our residence of Ste. Marie we caught sight of the flames which were consuming the wigwams of that village, *Id. p. 11, col. 1, line 10.* . . . On observing the flames and the color of the smoke that rolled up from them, we could form a correct enough idea of what was taking place; for the

* At first the dwellings only. See *Rel. 1649, p. 12, col. 1, line 43.*

village of St. Louis was not more than a league distant from us." *Id. p. 11, col. 1, line 19 et ss.*

BRESSANI. "In fact, the enemy tarried at the first fort [St. Ignace] only long enough to provide for the safety of the guards and their prisoners. Thence they marched straight on St. Louis. *Martin's translations, p. 253, line 19.* . . . The whole fort was reduced to ashes. *Id. ib. line 28.* . . . The cloud of smoke which we perceived from our residence [Ste. Marie I.] situated two miles (*) from it, was our first intimation of disaster, but soon two or three fugitives coming in confirmed the evil tidings." *Id. p. 254.*

Direction from Ste. Marie I. (Old Fort).

With all its imperfections, the inset map of Ducreux is of incalculable worth as a guidance in identifying the Indian village sites.



Without it a knowledge of their respective distances from Ste. Marie I would be of little avail, seeing that we should still remain ignorant of the direction in which they lay. To restrict ourselves to the case in hand, we see by the inset map that the bearings of St. Louis, with reference to the Old Fort, are a few points south of east, the very same bearing from the same landmark as east half lot 11 con. VI.; which lot also is all but 3 miles distant. The usual indications of its having been a village site were more strikingly observable at one time than at present. With such evidence before us, it is not too rash to conclude that east half lot 11, con. VI. is really the spot where the village of St. Louis once stood.

* The length of the Italian geographical mile was 1,852 metres. See, sub vocab., Dupiney de Vorepierre; Guérin, *Dict. des Dict. tom. 5*, and others.

But other elements enter into the determining of the direction of St. Ignace II. from St. Louis; for it must be remarked here that the St. Ignace of the inset map is certainly not St. Ignace II., in other words, not that of 1649, but rather St. Ignace I., occupying quite a different site previous to July, 1648. It would require too much space to give my reasons here for what seems a naked assertion; I hope to do so elsewhere.

The distance, as we have seen, from St. Ignace II. to St. Louis was about one league. As to the direction, it may be positively asserted that St. Ignace II. did not lie on an absolutely straight line passing through St. Louis to Ste. Marie I.; for, this would place it in too close proximity to St. Jean, correctly marked on lot 6, con. X., Tay. This crowding was to be shunned as liable to cause friction, owing, among other things, to the need each village had of an abundant supply of wood. On the other hand, its site must have been very little out of the straight line, since another reliable document gives the entire distance of St. Ignace II. to Ste. Marie as two leagues.* Were this measure mathematically correct, the sum of the other two distances (Ste. Marie I. to St. Louis and St. Ignace II. to St. Louis) must have been at least a trifle in excess of two leagues. At all events, the less the divergence from the straight line, the nearer is the approach to zero of the difference between the sum of the two distances mentioned above and the distance from St. Ignace II. to St. Marie I.

I said that St. Jean was correctly marked, consequently it is not to be crowded out, nor placed farther north. According to Ducreux's inset map, it lay almost due east, a very little to the south, between Sturgeon and Coldwater (or *Matchedash*) Bays, a good two leagues from Ste. Marie I. Lot 6, con. X., where village remains have been found, is similarly situated, and is just two leagues and a quarter from the Old Fort. The distance "*a good two leagues*" is given in a passage of Relation 1740 (p. 72, col. 2, line 36). But it must be borne in mind that the St. Joseph there mentioned is not St. Joseph II. or *Teanaostaiäë*, which was 5 or 6 leagues from Ste. Marie I. (*Rel. 1646*, p. 79, col. 1, line 44, taken in connection with line 13 same col.), and 5 or 6 from Ossossanë (*Letter of Fr. François Dupéron, Carayon, Première Mission*, p. 172.), but was merely another name for Ste. Marie I., into which both the residence of *Ossossané* and that of St. Joseph II. were merged, the former in the autumn of 1639, the latter in the early spring of 1640. (*Rel. 1640*, p. 63, col. 2 midway down). The house itself really bore the name of Ste. Marie or Notre Dame de la Conception, but the chapel, that of St. Joseph (*Same Rel. p. 64, col. 1, line 7-31*). In the original rescript or brief of Urbain VIII.,

* The obituary letter, written by his superior, of Brother François Malherbe, who died on the Saguenay Mission, April 19th, 1696, contains the following passage relating to the Brother while he was yet but a hired servant at Ste. Marie I.: "He had the honour as well as the charity to carry back to us [at Ste. Marie] on his shoulders, for a distance of two leagues the charred and blistered bodies (*corps grillés et rotis*, literally, broiled and roasted) of these two religious [Brébeuf and Lalemant]." See also *La Semaine Religieuse de Québec*, June 9, 1889, p. 322; and note on Bro. Regnaut's letter by the late Douglas Brynmner in *Can. Archives Report 1884*, pg. XV., who, however, errs in stating that this took place when the remains were being conveyed to Quebec.

dated Feb. 4, 1644, and still preserved in the Archives of St. Mary's College, Montreal, the chapel at Ste. Marie I. is mentioned as that of St. Joseph. That the term used is "*maison St. Joseph*" and not "*chapelle*" or "*église*" would seem to militate against this explanation were we not told very expressly in the same Rel. 1640 (p. 63, col. 2, line 32): "and thus we now have in the whole region but one house (*maison*)," which house is spoken of all through the chapter as that of Ste. Marie I. Nothing therefore could be more certain than that St. Jean was two *good* leagues from Ste. Marie I or the Old Fort.

Admitting the position of St. Jean to be practically settled, one could no be far astray in supposing that the line from Ste. Marie I. to St. Louis deflected, at the latter place, slightly to the south. St. Ignace II. would, in consequence, occupy a position somewhere between and abreast of, St. Jean and St. Denis,* at a point about two leagues, or six miles from Ste. Marie I. Lot 4, east half, Con. VII. answers all the requirements of topical configuration, distance and direction from the Old Fort. I think this is all I undertook to make good.

A Difficulty Removed.

Concerning this location of St. Ignace II., a difficulty has been raised on account of the wording of Brother Christophe Regnaut's letter dated Caen, 1678. The passage in question runs thus: "Fr. Jean de Bréboeuf (sic) and Fr. Gabriel L'Alemant (sic) set out from our cabin (*cabane*) to go to a small town (*bourg*), named St. Ignace, distant from our cabin about a short quarter of a league, to instruct the savages and Christian neophytes of that town. It was on the 16th day of March, in the morning, that we perceived a great fire at the place to which these good Fathers had gone, etc."

Christophe Regnaut, at the time of the occurrence he describes, was one of the hired men attached to the Fort of Ste. Marie I. Francois Malherbe, of whom mention has already been made, was one of his companions. Born in 1613, he was then thirty-six years old. How long he had been at the Fort is not known; but a number of hired men had come up from Quebec the previous year. He left Ste. Marie I. with all the others, the year of the massacre, and, in 1650, he returned to France where he became a lay-brother. Twenty-nine years after the occurrence, and when he was sixty-five years old, he

*St. Denis is also correctly marked on the map, and the same reasons exist, as for St. Jean, for not crowding it out of place. Ducreux's inset map gives us approximately the direction from Ste. Marie I. to Ste. Anne (Kaōtia, i.e., Kaontia) and to St. Denis, which is south-east. The remains of two Indian villages have been found quartered in the same direction, one on east half lot 9. con. III., Tay, the other on west half lot 3, con. V., Tay. That Ste. Anne lay one league from Ste. Marie I., is an inference forced upon the reader after confronting two passages from the Relations, viz., 1640, p. 70, col. 1, line 10 et ss., with *Id.* p. 54, col. 2, line 30 et ss. As may be seen on the inset map, Kaontia lay between Ste. Marie I. and Hogg River, while St. Denis lay to the east of that stream. In Rel. 1740, p. 71, col. 2, line 13 et ss., following close on a record of the occurrences at Ste. Anne, it is said that the other villages of the mission (three in number and among them St. Denis) were further from Ste. Marie than was Ste. Anne, which, as we have seen was distant one league. All these particularities find their counterpart, respectively in the village sites of east half Lot 9, con. III. (Ste. Anne), and west half Lot 3, con. V. (St. Denis); the former lying a short three miles, and the latter a very little over five from the Old Fort.

wrote the account of the martyrdom of Brébeuf and Lalemant which is embodied in the letter. Consequently he had reached a period in life when memory often turns traitor in the matter of distances, dates and names—*experto crede Roberto*. So it need be no matter of surprise if through the haze of night on thirty years, one all but faded name should be mistaken for another, and topographical outlines should have become blurred.

If the words *notre cabane*, in the passage quoted, really stand for Ste. Marie I., with its stone fort, its public chapel, its hospital within the palisaded enclosure, all taken together—then, not only is the passage inexplicable in itself, but it is absolutely irreconcilable with all the statements of serious men who recorded events at the time they were taking place before their eyes. Had Regnaut said “un petit bourg nommé St. Louis” it would be less incomprehensible, for, though the measure of distance given is at variance with all other estimates, still, St. Ignace II. would have found its place three miles further on. But by placing the little bourg of St. Ignace II. at a spot less than three-fourths of a mile from Ste. Marie I., the village of St. Louis, which, everyone knows, lay between the two, is entirely crowded out.

Should we, on the contrary, take *notre cabane* to mean some unpretentious shelter erected, let us say, a short quarter of a league from St. Ignace II., towards Sturgeon Bay, for the convenience of the hired men, like a cabin in a sugar-bush, a woodcutter's hut, or a deer stalker's box, then, with a little ingenuity, and without doing violence to the context we may read some sense into the passage.

For instance, we have but to take the opening sentence down as far as “it was on the 16th day of March etc.,” exclusively, as a pre-amble, giving us to understand that some days previous, while going their missionary rounds, the Fathers had called in at the “cabane” on their way, it matters little, either to St. Ignace II. or to St. Louis. But before the eventful morning of the 16th the Fathers on their side had betaken themselves to St. Louis, while Christophe Regnaut and the others had returned to the Fort. All that follows in the narrative would fit in with this interpretation without the least straining or wrenching. The very form of the phrase “It was on the 16th day of March, in the morning, that we perceived a great fire, etc” suggests the idea that the fathers had left the “cabane” some time before, but that it was not until the 16th that the fire was noticed.

If this explanation is deemed far-fetched, then all that remains to be said is that Brother Regnaut in this particular was simply mistaken.

Theories tested by Local Observation.

Before setting out from Coldwater, on August 15, 1902, in company of Father Nicholas Quirk, S. J., Mr. J. C. Brokovski, barrister, and solicitor of the village, and Mr. George Hamil on (both the latter having been my companions, together with Father J. J. Wynne, S. J., in a like expedition three years previous), I was in possession of all the foregoing data concerning distance and direction. So confident was I of the soundness of the inferences drawn from the scraps of information gleaned from Bressani, Charles Garnier, Malherbe's Obitu-

ary, Ducreux's Maps and the Relations, that, taking for centre a point within, and not far from, the S. E. corner of lot 3, con. VII., with a radius of one mile, I traced on the map of Tay township a circle two miles in diameter. It overlapped the townline, taking in the N. W. corner of lot 24, con. VIII.,* and the N.E. corner of lot 24, con. VII., Medonte township; and, in the township of Tay, the greater portion of lots 1, con. VII. and VIII.; the entire lots 2, 3, 4, con. VII. and VIII.; the greater portion of lots 5, same two concessions; and, finally, just the eastern ends of lots 2, 3, 4 of con. VI. If within this circle *one spot only* could be discovered, answering perfectly to the description given in Bressani and in the Relations, one might conclude indubitably that the place was none other than that once occupied by St. Ignace II.

I left ash beds, the most reliable indication of Indian occupancy out of the count; for, plainly discernable as they are, even for years after the plough has passed over them, there where villages had stood for ten, twelve, or fifteen years, it was not to be expected that such would be the case with the site of St. Ignace II. The life of the village had been too short. Two partial disasters had befallen its braves, following one on the other at an interval of a few days only (*Rel. 1648, p. 50, col. 2, line 41*), the first of which had occurred "towards the end of this winter" (*Id. p. 49, col. 2, line 38*) and forced the inhabitants to move to some other site more out of reach of the enemy and nearer Ste. Marie I, (*Id. p. 51, col. 1, line 1*). As this relation, 1648, was sent down to Quebec from the Huron Country, April 16th, 1648 (*Id. p. 45, col. 1*), the words "towards the end of this winter" must point to the interval between Feb. 1 and April 16—say, sometime well on in March. Now, St. Ignace II. was surprised and sacked, March 16, 1649, so that the site could have been occupied one year only. Two hundred and fifty-three years of winter snows, spring thaws, with summer and autumn rains, would amply suffice to wash away any accumulation of ashes from the lodge fires of a twelvemonth.

On the other hand, I had seen recorded a very significant particular in one of Mr. Andrew F. Hunter's pamphlets, most valuable archæological repertories for one in search of a catalogue of those township lots, within the limits of Tiny, Tay and Medonte, which have yielded unmistakable evidences of Indian occupancy. On the farm of Andrew Brown, west half lot 4, con. VII., Tay, many iron tomahawks had been found. John Moad, who had first cleared the land, picked up no end of them, the number in his possession varying; for, it is said that his shanty was sometimes covered with them, fifty or more laying on its roof at one time (*Monograph on Tay p. 30. No. 26*). Some few relics of the kind were also found on Ira Hazelton's farm, across the concession road, that is, on east half lot 4, con. VI.

*It was on this spot on the map giving the "Theoretical, Reconstruction of Huronia", which I contributed, in 1898, to Mr. Reuben G. Thwaites' re-issue of the Relations, that I set down St. Ignace II., a little over a mile and a quarter too far south-east. I had stretched the distance of St. Louis from Ste. Marie from three miles, as given in the old records, to three miles and two thirds, and, correspondingly in the same proportion, the distance of St. Ignace II. to St. Louis. This was done out of deference to Ducreux's map, where St. Louis is shown lying east of Hogg River.

The presence of hatchets in such numbers, scattered over the surface of the ground, was a sure indication that the spot was once the scene of conflict between savage tribes. As the weapons fell from the relaxing grasp of the dying brave they were trampled beneath the snow. The spring came, and the rank weeds or the fronds of fern, in forest and glade, shrouded them from the sight of the prowling savage, until they lay securely buried beneath the decaying leaves of two centuries and a half of recurring autumns.

I candidly acknowledge that my hopes of finding what had been anxiously sought for during the last fifty years, namely, the spot which had witnessed the martyrdom of the two heroic missionaries, Jean de Brébeuf and Gabriel Lalemant, were centered on this lot 4, con. VII., Tay. In consequence, the programme of the day's outing was so arranged that an inspection of the locality was to be made as early in the forenoon as possible.

With this in mind, we shaped our way westward from Coldwater, on the old Sturgeon Bay Road, and soon our double carriage was lumbering up the eastern declivity of Rosemount Ridge. At the XI. concession we struck the townline between Medonte and Tay, which we followed in a south-westerly direction as far as the concession road running north-west between VI. and VII. This ground Father Wynne and myself had already gone over twice, in May 1899, but with unsatisfactory results, owing to a drizzly rain which not only had dampened our enthusiasm somewhat, but had shut out effectively all view of the hills any considerable distance away. But on this occasion a kind Providence favored us with delightful weather, cool for August, and with an atmosphere of faultless transparency.

We could take in all the outlines of the distant hills and every break in the ground in our nearer surroundings. There were possibilities in lot 20, concession VIII., Medonte, which were noted for further inspection should our attempts at discovery among the more north-westerly sites prove abortive. To class it among the probable sites of St. Ignace II. was, I know, to stretch the measure of distance, reasonably elastic, to its utmost limit.

Lots numbered 1 of concession VI. and VII., including John A. Swan's farm showed no favourable feature. Entering on the concession road between VI. and VII. and moving north-westwardly we passed without stopping Daniel Chambers' on the right and Hector McLeod's on the left—lots 2 in VI. and VII.—as their appearance gave us little encouragement. Lot 3, concession VI., the farm first cleared by Mathew Campbell, Sr., and lots 3, concession VII., that of the late John Campbell, brother of Mathew senior, were just as unpromising.

We were still working within the two-mile circle, and had yet to visit two sites fronting on this concession line, one of which was on the farm of Andrew Brown, west-half lot 4, concession VII., where so many tomahawks had been found, so that we were not at all dispirited by our failures so far. But it was precisely here that a great disappointment awaited us. We drove well into the farm, and though alighting, when we could penetrate no further unless on foot, we so extended our investigations as to be able to form a perfectly correct idea of the lie of the land, we recognized no single feature of resem-

blance to the descriptions given of St. Ignace II. For a similar reason, the farm of Ira T. Hazelton, lot 4, concession VI., was alike barren of results.

Of course there yet remained for our inspection five sites, whose approach must necessarily be made by the concession line between VII. and VIII.; but since, at the point we had reached, we were more than half-way to the site of St. Louis, we determined to push on, and take in the unexplored portion of the circle on our return.

The itinerary lay north-west, by the same concession road we were on, as far as the side road between the lots 5 and 6, concession VI. over which we passed; thence again, north-west by concession line between V. and VI., to side road between lots 10 and 11, into which we turned to the N. E., and entered Mr. Charles E. Newton's farm, west half lot 11, concession VI. We examined carefully the eastern bank of Hogg River, facing the defensive position of the Indian village site. The verdict, unhesitatingly given, was, that even were this village at the proper distance from Ste. Marie I., it could not claim to be *powerfully fortified* by nature, though the slope towards the stream, abrupt in some places, and extending to three sides of the position, would contribute materially to strengthen its defences. Nor could it be, as St. Ignace II. was said to be, *impregnable* by its site and fortifications.

It was now getting well on into the afternoon, so putting off for the nonce a more searching examination of the western bank of the river, we repaired by the side road between lots 10 and 11 to the foot of a high plateau, which, beyond the middle of concession V., barred further progress. Here man and beast, amicably picnicing together in the shade, were refreshed. Thence we returned to the concession line, up which we drove for a short distance till fairly opposite the site. After proceeding on foot to the very edge of the slope on the west bank, and having taken into consideration all the possibilities of the locality we confirmed our former verdict. The ultimate conclusion arrived at was, that we were standing on the site of St. Louis, the spot where Brébeuf and Lalemant had been taken by the Iroquois while engaged in ministering to the dying Hurons.

Entering once more the side road between lots 10 and 11, in concession VI. and VII., and heading in a north-easterly direction, we remarked, for we were driving leisurely, the contours of the high ground where Indian remains had been found on four farms, viz., east and west half lots 10 and 11, in concession VI. and VII. Soon we neared the shore of Sturgeon Bay, with Waubaushene and Tanner's Mill well in sight, and turned S.E. into the road between concessions VII. and VIII.

The view of Mr. John Hamilton's farm seemed full of promise, as we toiled up the hill approaching it, but it lay a mile from the circle. Our most obliging driver, George, is the son of the present occupant and owner. He "gave a lift" to some of his little relatives on their way to the homestead, and was only too glad to have an opportunity of introducing us to his repected parent. The father, in turn, gave us all the information he could. We went over the farm, but found, alas, that it did not tally with the description in the old records.

Out once more upon the road, we continued along the same concession line and in the same direction, S.E. We had not made much headway, laboring slowly up the long ascent, when there loomed, high ahead of us, a long even eminence, crowned with a level field of golden wheat, and lit up with a gleam of sunshine against the blue sky beyond. The tableland extended back till it blended with the plateau to the west; but to the north-west the ground fell away sharply towards the highway, as it apparently did also on the side facing us.

We were now on a level with two sites, one on either side, east half lot 5, concession VII., occupied by Mr. William Hopkins, and west half lot 5, concession VIII., of which Mr. Arthur Loney is the proprietor. Neither could lay claim to distinction of any kind, and, both were, moreover, dwarfed by the site so conspicuous ahead.

Our expectations ran high—but were we to be again disappointed? If so, there was little chance of success further on, for evidently the three succeeding sites, in close proximity—the only ones of the circle remaining unexplored—would be overtopped and commanded by the prominence that filled our vision. As well as we could judge, from our position, of the configuration of the ground, two sides answered the description. One facing the north-west was fully in view. The second, on the north-east, of which we could see but one profile, sloped precipitately towards the road, and beyond it, with a rapid fall, stretched down the valley to Sturgeon River a mile away. On these two sides it was certainly *powerfully fortified* by nature. But of the third side it was impossible yet to tell. If the precipitous descent towards the N.E. should skirt the road for any considerable distance, the configuration of the ground would not be that of St. Ignace II. Our suspense lasted until we were well abreast of the position, when to our great relief we plainly saw that the high land sheered off abruptly towards the S.W. A description of this part of the Campbell farm, lot 4, concession VII., for such it turned out to be, would be an exact replica of the description given by Father Paul Ragueneau, in the Relations, and confirmed by Bressani.

We were so thoroughly convinced that the spot found was in reality St. Ignace II., that we did not even alight; calmly elated, and content beyond measure, in view of the result of our day's wanderings, we decided to proceed on our way back to Coldwater while the sun was yet above the horizon. But we were resolved to return the following morning the better to examine the ground and enjoy fully the satisfaction to be derived from the certainty of our discovery.

It was not until we had returned to Coldwater, and had already gathered for a quiet chat on the various incidents of the day—not all of which have found place in this account—that we became aware of one oversight. One final corroborative fact, pointing to the identity of the Campbell farm (lot 4, concession VII.) with the site of St. Ignace II., had escaped our notice; no doubt because we were too full of our find, at the time, to think of much else. Moreover it proved an ample compensation for our keen disappointment of the morning, for it showed that, in our forenoon researches, we had not gone much astray.

The fact which had remained unnoticed was simply this: The farm of Mathew Campbell, Jr., and that of Andrew Brown were contiguous; they were east and west halves of the same lot. No wonder, therefore, that so many tomahawks were found on the latter, the only approach on the level to the gates of St. Ignace II. We are told in the Relations that it was through the weakest part of the enclosure that the enemy forced an entrance; that is, as we now know, through the line of palisades facing southwest. For many of the villagers, if not for all, this was also practically the only way of escape.

The Iroquois were clever strategists. In all likelihood they foresaw that many would escape through the opening in the stockade in the confusion and turmoil of the fearful slaughter going on within. Reserve bands would have been posted on that part of the plateau to intercept the fugitives, and bear them down, by weight of numbers, before they could reach the sheltering forests. There was no concerted action in the defence. The terrified Hurons, who had escaped butchery in their wigwams, sought safety individually, after having snatched up the first weapon at hand, the tomahawk. Numbers, no doubt succeeded in reaching the open, but only to meet with capture or certain death beyond the enclosure. How thoroughly the bloody work was done by the implacable Iroquois is evinced by the fact that three only escaped half-naked through the snows.

On the morrow, Saturday, August 16th, an auspicious day, our party of four returned by the shortest route to lot 4, concession VII., the farm of Mathew Campbell, Jr., and, by the gracious leave of the proprietor, proceeded forthwith to make ourselves better acquainted with the salient features and main outlines of the tableland, or plateau, on which the old town was perched. No site could have been better selected, none more capable of a vigorous defence. Given the usual and necessary adjuncts of any fortified position, Bressani's one word "impregnable" is the fittest to convey an idea of its strength.

Its strongest side was that facing the present road, where the slope toward the concession line is broken midway by another terrace before reaching the highway, rendering possible, on that side at least, a first line of defence, in full view and commanded by the second on the crest of the hill. On the two other sides, one facing the north-west the other the south-east, the escarp gradually becomes less precipitous. Towards the south-west the position offers no natural advantages; but, with the other sides secure, it could have been made to present quite a formidable front, with converging, flanking fires (*) provided for in laying down the line of the palisades.

This part of the farm has, to all appearances, been a long time under cultivation, and for that reason, no doubt many of the sharper lines have been rounded off by plough and harrow, or by the washing down to the lower level, by rain falls, of the upturned soil along the slopes.

(*) The Fathers had shown the Hurons the advantage in fortification of bastion, gorge and curtain. I find the following example of the use of the adverb *Vis-a-vis* in Father Potier's Huron Grammar (p. 72 l. col. midway): *Et iotenroketas d'eeias, en tirant v. g. d'un bastion, on aura vis-a-vis ceux qui seraient le long de la courtine. . . . on raserà toute la courtine en tirant. . . . ab oketi tirer droit*—"in firing v.g. from a bastion, those along the curtain will be in front of you . . . the curtain will be swept in firing. from *oketi* to shoot straight."

We could not without serious damage to the standing grain attempt to reach the very brow of the hill where the declivity is steepest, but from where we stood we had a commanding view of the Rosemount Ridge, towards the east and south-east, and the eye plunged deep into the sombre valley of the Sturgeon that lay at our feet.

As a look-out, for the child of the forest, grown familiar with the ways of the wilderness, and with his keen vision, sharpened still more by his every-day contact with nature in her every mood, the site of St. Ignace was a near approach to the ideal. And had it not been for the innate apathy of the Huron, of which Brébeuf time and again complained, St. Ignace, instead of falling an easy prey to the enemy, might have proved the bulwark of the nation. But he lacked the vigilance of the Mohawk and the Seneca, and paid dearly for allowing himself to be lulled into the quietude of a false security.

Turning towards the north and north-east, the eye ranged over the waters of Sturgeon Bay and the greater Matchedash, and took in a wide stretch of country in the Muskoka district, while, a little further east, it swept over Gloucester Pool, the mouth of the Severn and no small extent of the North (or Black) River Valley. But all these local advantages, as rehearsed above, all the charms of the panorama, which unfolds itself before the gaze of one standing on the site of St. Ignace, might well be dismissed from thought with a passing note of admiration, were not memories of a far higher order of excellence woven round it. Vastly grander visions of the beautiful and sublime in nature are to be met with within the confines of this great Dominion, and in an endless variety of kind, from the beetling crags of Trinity Rock, the towering mass of Cape eternity on the Saguenay, to the fairy scenes of enchanting beauty in the Islands of the St. Lawrence: from Niagara, with its deafening roar of waters plunging to depths unknown, to the silent solitudes of the Selkirks, whose glittering peaks cleave the very clouds above—all these and others, surpass it immeasurably either in majesty of outline or in perfection of detail.

But no spot on the wide expanse of this continent was hallowed by a nobler sacrifice for the Master than was consummated on this hill-top a few acres in extent, and which lay for two centuries and a half lost in the recesses of the forest. There where we were standing, stood, long since, two Christian heroes whose life ebbed slowly away amidst unspeakable torments. Unlike the martyrs of old who stood in the great amphitheatres of Rome, awaiting death from the wild beasts of the arena, they had no friends among the onlookers to encourage them by voice or gesture. They stood alone in the wilderness of the New World with a few neophytes, sharers in their sufferings, among a howling band of savages, more ferocious than lion or leopard. And as the flames curled round their blistering and lacerated limbs, the smoke of the sacrifice ascended as sweet incense to the throne of the Eternal.

II.

DISCOVERY OF EKARENNIONDI OR THE STANDING ROCK OF THE PETUNS.

It was said in the beginning of these notes that the second satisfactory result of last summer's researches was the finding of the "Rock that Stands Out," or the "Standing Rock," *Ekarenniondi*, from which the Petun village of St. Mathias took its name; the position of which was to furnish us with a clue to the whereabouts of *Etharita* or *St. Jean*, another Petun village, where Father Charles Garnier was massacred.

Great as are the difficulties which beset the chartographer of oldtime Huronia in his attempts at reconstruction, they take on the proportions almost of an impossibility when he turns his attention to the region once occupied by the Petun or Tobacco Nation. There is in the former task an all-important, helpful element entirely wanting in the latter, that is to say, a starting point, or landmark, whose position on the map is determined beyond all dispute, namely, Old Fort Ste. Marie I. What Ste. Marie I, is for the chartographer of the Huron country, *Ekarenniondi*, once determined with certainty, would be, and would stand him in the same stead, in mapping out the home of the Petun. And though the available data are much more scanty than when there is question of locating the Huron villages, one very desirable result at least may be achieved in finding the exact site of *Etharita*, which contains the yet undiscovered grave of its devoted missionary. (*Rel. 1650, p. 10, 1 col.*)

Two Mutually Supplementing Passages.

For information we naturally turn to the old records. In the Relations *Ekarenniondi* is not mentioned in connection with the village of St. Mathias; but Charles Garnier, in a letter to his brother, dated April 25, 1648, gives us the following particulars:—

"My Superiors have sent me with one of Ours, named Father Garreau, to a new mission (in the Petun Nation), which we have called the Mission of the Apostles. . . . Fr. Garreau is to instruct the Algonquins and I, the Hurons. . . . Wherefore we both took up our station in a town made up of Hurons and Algonquins. . . . The devil brought about a rupture between the Hurons and Algonquins by means of a murder. . . . It was an Algonquin who was slain . . . The Algonquins blamed the Hurons, and then withdrew from the village called *Ekarenniondi*, where they had been living together, and joined another Algonquin nation two days journey from *Ekarenniondi*. . . . Since last summer Fr. Garrea and myself have concluded to concentrate our efforts principally on two Huron towns, which are four leagues apart, the one named *Ekarenniondi*, dedicated to St. Mathias, the other *Etharita*, dedicated to St. Jean l'Évangéliste." (*Contemporaneous M.S. copy p. 99; Recent copy p. 84, St. Mary's College Archives.*)

On the other hand, in the Relations, though the Indian name is not associated with any town, it is, with a certain rock standing on

the confines of the Petun Nation. I translate the passage from Brébeuf's Relation, dated, Ihonatria, July 16, 1636 :—

"One day I asked one of our savages where he thought the village of the [departed] souls was. He answered that it lay in the direction of the Petun Nation, that is to say, towards the west, eight leagues from us, and that some had seen them as they journeyed on; that the road they followed was wide, and pretty well beaten, and that they passed near a rock which they [the Hurons] called *Ecaregniondi*, which is often found embellished with the paint with which they are wont to daub their faces." (*Rel. 1636, p. 105, 1 col., Quebec edition; Vol. 10, p. 145, Cleveland edition.*)

Two Forms of the same Word.

In Garnier's *Ekarenniondi* and Brébeuf's *Ecaregniondi* we have two names resembling each other in sound sufficiently to awaken conjecture as to their identity, yet sufficiently unlike orthographically to preclude this, their identity, being taken for granted. A word or so of explanation will not, therefore, be out of order.

Brébeuf, in writing for those unfamiliar with the Huron language, always wrote the word so that it would be pronounced correctly by a Frenchman, or as nearly so as possible. Garnier, in the present case, wrote the word as it should really be written. If we consult Potier's rules on the pronunciation of the Huron letters (*Grammar p. 1*), we find this direction under the letter "i": "Si coalescit in unam syllabam cum præcedentibus vel *d*, vel *t*, vel *k*, vel *n*, et *i* sit purum [i.e. followed by another vowel], fit quasi liquefactio in pronuntiando, v. g. : *andia* [initial *a* with iota subscript] dic *ianguia*; *hatatiak* loquitur, dic *hatakiak*. . . *eannronk* [both initial vowels with iotas subscript] je fais chaudière, dic *iëiagnionk*, *gn* ut Galli agneau; *onnianni* bene, dic *ogniandi* vel potius *ongiandi*."

In *Ekarenniondi* the first "i" is preceded by an "n" and followed by another vowel, hence the proper pronunciation will be "*Ekaregniondi*", the "gn" being liquid as in the French word *agneau*, lamb.

As for the difference in the spelling of the second syllable it is more apparent than real, the *c* in *car* being hard, while we are informed by Potier (*Gram. p. 1*) that "k et X" [Greek chi] sonant ut kh, v. g. X a, hic, hæc, hoc, dicitur Kha."

Meaning of the Word.

As most Indian names are descriptive, we are prompted by sheer curiosity—which, however, may take a practical turn—to look up its signification. Here again we find two forms, for both *Ekarenniondi* (with a diminutive *d* over the second *n*) and *Ekarendiniondi* are given. The former is to be found in the shorter list of Huron roots in Potier's Grammar (*p. 143, 1 col. No. 80*) as the first derivative from *iondi*; the latter, in the more exhaustive catalogue, compiled in 1751 by the same author (*p. 237, No. 28*), where it also is given as the first derivative from *iondi*, which latter occurs only in compound words. The meaning is "être étendu, s'étendre, s'avancer en pointe, en long" to be extended, to stretch out, to project or stand out in a point, in

length; though *iondiati*, with a diminutive “g” over the “d”, is set down separately as meaning “étendre en long” to extend in length.

The compound word is translated “là où il ya une pointe de rochers qui s’avance” there where there is a point or rocks which projects or stands out.

Through the kindness of the Abbé Lindsay, of Quebec, I had the good fortune some time ago to have at my disposal for a few hours the French-Huron dictionary, belonging, I believe, to Rev. M. Prosper Vincent, of Charlesbourg. Under the word “Pointe” I found “*iondi* in compositione, *Ekarenniondi*, à cette pointe de roche” at that point of rock. And I take it that peak, pinnacle, or spur of rock, would be quite in keeping with the sense.

Derivation of the Word.

Now should we wish to try our hand at decomposing *Ekarenniondi*, which is a word compounded of *EXa*, *ârenda* (initial *a* with a circumflex accent and an iota subscript) and *-iondi*, the meaning is rendered, if possible, clearer still.

EXa, an adverb of place, which is translated by Potier Gram. p. 68, 1 col.) “hic, huc, hac, hinc,” here, hither, in this place, hence.

“*Arenda*, rocher, roc” (*Radices Huronicæ*, Potier, 1751, Pg. 292.)

-iondi (Gram. p. 143, 1 col., No. 80, and Rad. Hur. 1751, p. 237) with the meanings already given above.

Consequently *EXa-ârenda-iondi* would mean “Here the rock stands (or juts) out.” In accordance with the rules given by Potier (Gram. p. 66), it is reduced to its proper form:—“R. 1., Substantivum semper præit. R. 2, Ultima vocalis substantivi perit, et consonans adjectivi vel verbi [verb], quæ initialis est, eliditur; sive (quod idem est) perit vel ultima primi verbi [word] littera, vel prima littera secundi verbi [word]”.

EX(a)arend(a)iondi, *Ekarendiondi*, which, as we have already seen is the equivalent of *Ekarenniondi* or “The Standing Rock.”

Having thus satisfied ourselves that Brébeuf and Garnier were using the same word; and recalling the fact that, as a general rule, names of Indian villages are suggested by some topographical feature, or by some historical event, which has rendered the place famous; we cannot help coming to the conclusion that the site of St. Mathias or at least its immediate vicinity, is marked by some monumental rock; a rock of exceptional formation, something out of the common, remarkable enough to strike the fancy of the Savage; a rock jutting out of a bank, projecting from a ledge, rising from the bed of a stream, or standing erect in the open campaign; a landmark, in fine, unique in the neighborhood.

The next thing in order would be to enquire if there were not to be found somewhere on the confines of the Petun country a rock of that description. But we are confronted here by a serious difficulty. Where was the Petun country, and what was the position of *Ekarenniondi*, or St. Mathias, relatively to the other Petun villages?

Position of the Petun Country.

It is not necessary to recapitulate here the opinions of modern authors with regard to the position of the Petun country; all are sub-

stantially correct. The divergence, where it exists, arises from some writers circumscribing within too narrow limits the region occupied by that nation. In general terms the Khionontateronons* extended westward all the way from the Blue Hills, in the western part of Nottawasaga township (Simcoe County), to the shores of Lake Huron proper, and northward to Cape Hurd, taking in approximately what now constitutes Grey and Bruce Counties. The Algonquins, however, mingled freely with them, and reared their temporary cabins anywhere along the coast line from Nottawasaga Bay to the mouth of the Saugeen. They took up their abode even in the permanent villages of the Petuns.

This rather scant information may be gathered without much effort from the Relations and from Ducreux's general map. Of the nine villages enumerated in Relation 1640 (*p. 95, 1 col.*), and which were visited at that time by Fathers Isaac Jogues and Charles Garnier, two only are set down by Ducreux; that of St. Pierre et St. Paul, situated, I should say, to the east of, but near Saugeen River, and not very far from its mouth; the other of St. Simon et St. Jude, on a little bay on the north shore of St. Edmund township, Bruce County. The remaining seven, viz.: St. André, St. Jacques, St. Thomas, St. Jean, St. Jacques et St. Philippe, St. Barthélemy and St. Matthieu, are apparently ignored. At that date, 1640, the town of St. Pierre et St. Paul was the furthestmost and the principal one of the district allotted to the two missionaries, while St. Mathias is not mentioned in the Relation. Nine years after, that is in 1649, St. Jean is mentioned as the principal centre, (*Bressani, p. 263*).

With the exception of what refers to the villages of St. Mathias and of St. Jean, and what has already been said of St. Pierre et St. Paul and St. Simon et St. Jude, there is scarcely a shred of evidence which could possibly be turned to account in locating any of the other villages whose names have come down to us. I say, scarcely a shred, for there are some all but hopelessly vague indications bearing on the positions occupied by St. Thomas and St. Matthieu. It would unduly lengthen this paper were I to discuss them at present.

The Eastern Boundary Line of the Petun Country.

The missionaries themselves, whatever may have been the cause, are not at one in estimating the distance from Huronia to the country of their western neighbours, as the following summary will show:

Brébeuf, (Rel. 1636, p. 105, 1 col.), gives the distance as "eight leagues from us." His relation is dated from *Ihonatiria*, July 16, 1636. Now twenty-four miles, taken in a straight line, would not reach from the site of old *Ihonatiria* across Nottawasaga Bay to the

* *Etymology*—*Chi-onnonta-ronnon*.

"*Chi*, loin (Potier, Gramm. p. 91) expressing distance, site, point of time etc. *Chi* au delà [beyond] vel *echi*, *chi asatenrati*, trans murum [beyond the wall, the palisade], *chiaandaSati*, de l'autre côté de la rivière [beyond or on the other side of the river] etc."

"*Onnonta (atennonta) montagne* [mountain]" (*Potier Rad. Hur. p. 291, 2 col.*)

"*Ronnon*" (nomina Nationalia, Potier, Gr. p. 65, No. 7). "*Nationalia formantur a nomine proprio addendo ronnon* v.g. : *annontae, onnontaeronnon*, les habitants des montagnes" (the mountain dwellers).

Consequently *Khionontateronons* would mean those that dwell beyond the mountains.

present town of Collingwood. Twenty-nine or thirty miles would about suffice. If by "from us" he means from *Ossossané*, which was really the starting point of the Hurons going to the Petuns: then the twenty-four miles would reach around the Bay to a point beyond Duntroon, or if taken in a more northerly direction, almost to lot 30, concession XI, Nottawasaga township.

Le Mercier, (*Rel. 1637*, p. 163, 2 col.), writing from *Ihonatiria*, June 21, 1637, says, ". . . the Petun Nation, which is two days' journey from us." According to a passage in *Rel. 1641*, (p. 71, 2 col.), four or five days' journey is about forty leagues. That would be ten leagues a day, if the journey was made in four days, and, if in five, it would be eight leagues a day; so that *Le Mercier's* estimate would be from sixteen to twenty leagues, or from forty-eight to sixty miles.

Chaumonot (*Autobiographie*, Edit. Paris, 1885, p. 94), in speaking of the Petuns says that they were "A nation which was situated eleven long leagues from our dwelling." He resided at that time at *Ossossané*. (*Ib.* p. 93; cf. also *Rel. 1641*, p. 71, 2 col.) This would mean, I suppose, thirty-four or thirty-five miles.

Bressani (*Martin's French Translation*, p. 62) places them further: "Towards the setting sun" he says, "on the shores of this lake [Huron] there exists a nation which we call the Petun [Tobacco] Nation because it raises an abundance of that plant. It lay but thirty-five or forty miles from us." And again (*Ib.* p. 254), referring to the fugitives from the Huron villages destroyed in 1649, he writes: "Women and children and many aged men who had reached their hundredth year, journeyed the whole night long on the ice, intent on reaching the country of the Petuns, more than forty miles away."

Jérôme Lalemant (*Rel. 1640*, p. 95, 1 col.) has this to say: "The *Khionontateronons* called the Petun [Tobacco] Nation, on account of the abundance of that plant produced in their country, lie towards the west, and are distant about twelve or fifteen leagues from the country of the Hurons, whose language they speak. Formerly they waged cruel wars against each other, but they are now on very good terms, and but a short time ago they renewed their alliance. Moreover, they formed a confederation against some other nations, their common enemies." The letter is written from the Huron country without indicating any particular place.

It will be well, for convenience sake, to tabulate these estimates:

Distance of Huronia from the Petun Nation.

Authority.	Leagues.	Miles.	Starting Point.
Le Mercier	from 16 to 20 or about	from 48 to 60	Ihonatiria
Brébeuf	" 8 " 8	" 24 " 24	?
Bressani	" 11 $\frac{2}{3}$ " 13	" 35 " 40	?
Jer. Lalemant	" 12 " 15	" 36 " 45	Huronia
Chaumonot	11 (long leagues)	" 34 " 35	Ossossané

In striking an average *Le Mercier's* estimate may be set aside since it evidently had *Ihonatiria* for its *terminus a quo*; and even in this supposition it is a high estimate if there were merely a question of the distance to the confines of the Petun country. Sixty miles

from *Ihonatiria* (Todd's Point) taken around the head of Nottawasaga Bay would land us near the point of junction of the four townships of Holland, Euphrasia, Artemesia and Glenelg, in Grey County. Forty-eight miles would reach a little beyond the middle of Osprey township. The average of the four remaining estimates would be from thirty-two and a quarter to thirty-six miles; half the sum of which is thirty-four and one-eighth.

With *Ossossané* (near Point Varwood) as a starting point, twenty miles of the thirty-four and one-eighth, in a sweeping curve around the bay, would bring us to concession IV., Nottawasaga, on the Duntroon road just beyond Stayner. Taking this point as a centre, and the remaining fourteen and one-eighth miles as a radius, the arc traced would, according to the average of the above estimates, represent approximately the eastern limits of Petun territory. I have no doubt now that this line is from five to seven miles too far west, for through the curve, roughly speaking, may be said to be parallel to the trend of the eastern slopes and ridges of the Blue Hills, it is that many miles west of it.

The appositeness of the last remark lies in the fact, that whenever these "Mountains" are mentioned in the old records they are spoken of either as the Mountains of St. Jean or as the Mountains of the Petuns. "A prisoner," says Bressani (*p. 263*), "who had escaped from the enemy's country, came in and warned us of the project they had formed of invading either our island [Christian Island] or else the Mountains of St. Jean." So also the Relations: "As the inhabitants of the Huron towns dispersed they followed different routes in their flight: some threw themselves into the mountains which we call the Petun Nation, where three of our Fathers laboured last winter in three different missions; others betook themselves to an island, etc." (*Rel. 1649, p. 26 2 col.*). The impression left after reading these passages is that the Blue Hills were, on the side facing the Hurons, conterminate with Petun territory.

*Position of Ekarenniondi or St. Mathias Relatively to St. Jean
or Etharita.**

It is beyond the eastern line of the Blue Hills, if what precedes is to be taken into account, that one must look for the village sites

* Etymology: e-tho-ariti-a, *Etharita*.

"*Tho, Oo. là, ibi, in eo loco sine et cum motu, v.g.: t'ahonrhon, là où ils sont reposés, tho eret, il ira là*" (*Potier, Hur. Grammar pp. 103, 104.*)

"A" denotes number, quantity, size, value, etc.; "a in compositione sequitur suum simplex, v. g.: *chi cannen iandatsa* c'est une grande chaudière." (*Rad. Hur. 1751, Potier, p. 1.*)

"*Ariti faire cuire on mûrir quelque chose*" (to have something cook, ripen, etc.). (*Rad. Hur. 1751, p. 185.*)

Consequently we have *tharita*, conformably with the rules to be observed in compounding words, already quoted above. The idea of stability or perpetuity is now added by means of an initial "e". See "*Variae significationes particularum ti, sti, k8i, etc.*" (*Potier Gram. p. 81.*) These particles are suffixes, but under note 4 we find "Significant perpetuitem cum 'e' initiali; v. g.: *eochrati* perpetua est hyems, etc." The suffix *ti* does not modify the final *ta*, which conveys a sense of its own; but the initial "e" imparts to *tharita* its final form *Etharita*, with the meaning "The ever principal drying or maturing place," referring, no doubt, to the ripening and curing of tobacco, the staple product of the country.

of the Tobacco Nation, at least as it existed at the time the Fathers were evangelizing the Huron tribes. The two villages that hold out most hope to one bent on discovery are those of St. Mathias and St. Jean, whose Huron names, as we have already seen, were respectively *Ecarenniondi* and *Etharita*. In the same passage of Garnier's letter from which this information is derived, we are told that they were four leagues apart.

These same villages were the chief towns of two distinct clans. "Having received," writes Father Paul Ragueneau, in his Relation of 1648 (*p. 61, 1 col.*). "a pressing invitation from those known to us as the Petun Nation to undertake their instruction, we sent them two of our Fathers who are now engaged in two missions established among the Indians of two distinct tribes. We have given the name of Mission of St. Jean to the Wolf tribe, and the name of St. Mathias to the other which styles itself the Deer tribe."

As to their relative positions, we learn with certainty from the Relation of 1650 (*p. 8, 1 col.*) that St. Jean lay in a southerly direction from St. Mathias. If we bear in mind that the nearest of the Iroquois Nation lay to the south, the wording of the Relation is not ambiguous. "In the mountains which we call the Petun country, we had for several years two missions, in each of which two Fathers were stationed. The one nearer the frontier exposed to the enemy was that of St. Jean, the principal town of which bore the same name, and comprised about five or six hundred families." It lay also, in all probability, a little to the west; for had it been situated due south, and with more reason if to the south-east, it is not likely that Father Noël Chabanel would have passed through St. Mathias, as he did (*Rel. 1650. p. 16, 1 col.*), when he was endeavouring to obey an order to return from St. Jean to headquarters, then established at St. Marie II. on *Ahoendoé*, now Christian Island.* It would in such a hypothesis, have considerably, and to no purpose, lengthened a journey through a rugged and hilly country.

To sum up in a few words, St. Jean lay about twelve miles from St. Mathias in a southerly, or more likely in a south-westerly direction.

As for the nature of the configuration of the ground, all we can surmise is, that it must have had, though in the hills, a good southern exposure, since the Huron appellation denotes a place where things ripen or are dried, in allusion to the curing, or, perhaps, rapid and successful growth of the indigenous tobacco plant.

Diagram on the Map Explained.

It is fortunate that there is a possibility of checking, to some extent, the accuracy of the foregoing inferences by collating the results with what another passage in the Relations seems to suggest. This passage was just mentioned above in connection with Father Chabanel; and not only for the sake of a more ready reference, but also that no incident may be overlooked, it is advisable to give it in full, and

* The construction of Fort St. Marie II., on the Island of St. Joseph, was completed in November, 1649. *Letter of the Ven. Marie de l'Incarnation, March 17, 1650. Tom. I., p. 416.*



BRUCE CO.

I. St. Edmund.
 II. Lindsay.
 III. Eastnor.
 IV. Albemarle.
 V. Amable.
 VII. Saugeen.
 VIII. Arran.
 XIII. Bruce.
 XIV. Elderslie.
 XIX. Greenock.
 XX. Brant.
 XXXII. Carrick.

SIMCOE CO.

XII. St. Vincent.
 XV. Sullivan.
 XVI. Holland.
 XVII. Euphrasia.
 XVIII. Collingwood.
 XXI. Bentinck.
 XXII. Genelg.
 XXIII. Artemesia.
 XXIV. Osprey.
 XXXIII. Normanby.
 XXXIV. Egremont.
 XXXV. Proton.
 XXV. Nottawasaga.
 XXVI. Sunnidale.
 XXVII. Vespra.
 XXVIII. Flos.
 XXIX. Medonte.
 XXX. Tiny.
 XXXI. Tay.
 XXXVIII. Tossorontio.
 XXXIX. Essa.
 XL. Innisfil.
 XLIII. Adjala.
 XLIV. Tecumseth.
 XLV. W. Gwillimbury.

GREY CO.

VI. Keppel.
 IX. Derby.
 X. Sarawak.
 XI. Sydenham.

DUFFERIN CO.

XXXVI. Melancthon.
 XXXVII. Mulmur.
 XLI. Amaranth.
 XLII. Mono.

translate it as literally as possible. The letters within brackets, which I have inserted in the text, refer to the map, on which F is assumed to mark the site of *Ecarenninodi* or St. Mathias, and A, that of *Etharita* or St. Jean. The latter is placed on the arc N O; but there is no reason why it should occupy the point A preferably to any other on the curve, save what was said in support of the theory that its bearings were south-west rather than due south. Were I to hazard an opinion as to its more likely position, I should say that the site would eventually be found within the boundaries of Osprey Township (XXIV) and a little nearer to F,—since the radius F A represents the full distance of twelve miles,—and not far from its supposed site A.

The other curve P M is the one referred to, as being from five to seven miles too far west, while dealing with the eastern limits of the Petun territory. Its centre will be found in the northeast part of Nottawasaga Township, marked by a dot within a small circle, lying just outside the Village of Stayner, or the Duntroon Road.

One last preliminary remark before citing the passage;—the various routes followed, as indicated by the letters and the dotted lines, are wholly hypothetical, and are to be accepted so far only as they explain more or less plausibly the text itself, and fit in with all the facts recorded.

Ragueneau's Account of Chabanel's Journey.

“ Father Noel Chabanel was Father Charles Garnier's companion on the mission [A]; and when the Town of St. Jean was taken by the Iroquois two days had elapsed since they parted company in compliance with an order they had received; for our Fathers and myself had deemed it expedient not to keep two missionaries exposed to danger, to say nothing of the famine which was so direful that sufficient food could not be found for two. But having borne together the burden of the same mission, God willed that they should not be separated by death.

“ The good Father [Chabanel], while returning to where obedience recalled him, had passed by the mission of St. Mathias [F], where two of our Fathers were in charge, and had taken leave of them on the morning of December 7. With an escort of seven or eight Christian Hurons, he had made his way for six good leagues over most trying roads when he was overtaken by night in the depths of the forest, [H]. His companions lay sleeping, while he alone kept a prayerful watch. Towards midnight he heard the noise and shouting of the enemy's victorious warriors [C] and of the prisoners, taken that very day at the Town of St. Jean, who were singing their war-song as is their wont. Startled by the sound, the Father roused his companions, who without a moment's delay fled through the woods. They eventually effected their escape by scattering on all sides, then by a circuitous route they headed towards the very place [A] whence the enemy were coming.

"These Christians, after this hair-breadth escape, regained the Petun country,* and reported that the Father had come a certain distance [H I] in his attempt to keep up with them, but that worn out with fatigue had sunk on his knees and exclaimed, 'What matters it if I die? This life is of little account, but what the Iroquois cannot snatch from me is the happiness of heaven.'

"At daybreak the Father bent his course in a different direction; and pushing on all intent on joining us at the island [*Ahoendoë*] where we were living, came upon a river which lay athwart his path, thus barring further progress [L]. A Huron brought in this report, adding that he had ferried him across in his canoe. Furthermore, that his flight might be all the more unimpeded, the Father had disburdened himself of his hat, of a satchel wherein he carried his manuscripts, and of his blanket, which with our missionaries does duty as wrapper and cloak and bolster and mattress and bed, or any other accoutrement necessary; it even serves as a roof, when they are on the move, and, for the nonce, have no other shelter," etc. (*Rel. 1650, p. 16.*)

How it Happened that the Trails Converged.

The only particular in this narrative that requires elucidation is the implied fortuitous converging of the two trails: the one followed by the Iroquois retiring after having dealt their blow, and the other, by Chabanel's party on their way to *Ahoendoë*. That the Father and his guides should have preferred a more inland route to the shore line in their retreat, is intelligible. Journeying by the latter they would be more in view, and would have less chance of escape if pursued. To find an adequate reason for the direction taken by the invading bands after destroying St. Jean, we must turn back to page 8, of the same Relation. The passage, wherein the explanation is more than suggested, runs as follows:—

"Towards the end of November, news reached us by two Christian Hurons, who had escaped from a war party of some three hundred Iroquois, that the enemy were yet undecided as to their future action; whether, in other words, they should march against the Petun Nation, or attack us in the island we occupied. Thereupon, we held ourselves on the defensive, and detained the Huron bands, who were planning to take the field to meet the approaching enemy. At the same time, we sent word promptly to the Petun Nation, who received the news with rejoicing, counting as a certainty beforehand on the defeat of the invaders, and considering the invasion as a proffered occasion of triumph. They resolutely awaited the attack for some days, then, growing restive at victory's slow coming, they sallied forth to meet it—at least the braves of the village of St Jean did so, being men of action and undaunted. They even hurried their departure lest the Iroquois should escape them, for they were eager to surprise them while yet on their way. They set out on December 5, and directed their march towards the quarter whence they expected the enemy [E]. But the invading bands were not met with; they had chosen a roundabout route [D C A]; and to heighten our misfortune,

*Consequently, part, at least, of the eighteen miles (six leagues) covered after their departure from St. Mathias lay beyond what was considered Petun soil.

as they drew near the village [St. Jean], they seized a man and woman who were just leaving it. From these two captives they learnt how things stood in the village, and of the absence of the best part of its defenders. Thereupon they hurriedly pushed on to take advantage of so favourable an opportunity to deluge in blood, and reduce the place to ashes.

"It was on the seventh day of December last, in the year 1649, about three in the afternoon, that this war-party of Iroquois reached the entrance of the town," etc. (*Rel. 1650, p. 8*)

Inferences Drawn from the Quotations.

That the Iroquois afterwards withdrew by a route, varying little in its general direction from B C D, there cannot be a shadow of doubt; otherwise it would have been impossible to have approached, near enough to be heard, any trail followed by Father Chabanel while attempting to make his way to Ste. Marie II. This alone goes to show that their base of operations—for it was part of their strategy to provide one in case of a reverse—was established somewhere towards the eastern extremity of Lake Simcoe, near Orillia.

This fact once admitted leads necessarily to another inference, namely, that it was from that base, and along the same line, their bands made their approach towards St. Jean. In so doing, they left no flank open to attack. To the north, it is true, lay the whole Huron peninsula, but it was cleared of its inhabitants, and its palisaded strongholds dismantled. To the south their march was covered by the long reach of Simcoe Lake, and Kempenfeldt Bay. This move accounts for, and this move alone can explain, the discomfiture of the *Etharita* braves, who, confident of meeting the hostile bands of the Iroquois, had very naturally taken quite a different course towards the south.

Another important point must be duly emphasized. The scene of the night's halt of Chabanel's party, and the eighteen miles covered after leaving *Ecarenniondi*, necessarily lay to the west of the Nottawasaga River; seeing that it was the only unfordable stream—and that towards its mouth—which intersected the comparatively low-lying lands between Huronia and the Blue Hills. Had that stream been already crossed before the enforced bivouac at H, Chabanel could not have stood in need of the apostate Huron's canoe.

All the inferences drawn from the passages quoted above would be very much the same even were the points F and A slightly displaced.

The Nottawasaga River, in its course from Essa to Flos, taken at any point, is eighteen miles distant from the western boundary of Nottawasaga Township, which is at the same time the county line. In Flos Township, the bend in the stream near Vigo is about seventeen and a quarter miles from the same boundary. So it will readily be understood why our exploring party, in hopes of discovering the rock *Ecarenniondi*, or St. Mathias, directed its researches for a goodly stretch along the road dividing the two counties of Simcoe and Grey.

Ground Gone Over Before Reaching Stayner.

To omit nothing that might interest those given over to historical research, and to put on record failures met with as well as successes scored, it will be necessary to go back to the last entry in our field-notes.

On Saturday afternoon, August 16, the eventful day on which, by a thorough inspection, we had satisfied ourselves that east half lot 4, concession VII, Tay, was in reality the long sought for site of St. Ignace II., my reverend companion and myself boarded the train for Orillia, where we passed the Sunday. Rev. Father Moyua received us hospitably, and overpowered us with kindness. Mr. R. D. Gunn and Mr. Robert Curran, editor of the "News Letter," amicably and successfully conspired to render our short stay at "Champlain's Narrow's" a most agreeable one.

Facts and Fancies.

The afternoon of Monday, August 18, found us back at Coldwater, where Mr. Brokovski and Mr. George Hamilton were awaiting us. It was amusing to learn from the former, who had spent the interval since our departure from Coldwater somewhere in the vicinity of Severn Bridge, that rumour had already been busy on our account. We were, it appears, treasure seekers, and our search thus early had been crowned with partial success; for a sum—to be precise—of not less than thirty-five thousand dollars had been dug up; but we were greedily bent on adding to our treasure-trove.

This recalled the tales to which Father Wynne and myself had listened with unfeigned interest three years previous. Forty-seven years ago, Father Felix Martin, S. J., and a young Jesuit student, well known in after years, to New Yorkers as Father Patrick Daly, had visited the Huron County in the interest of Archaeology. They live yet in the memory of the "oldest inhabitants," but vested by time and fancy with a haze of mystery. Local traditions vary as to the specific object and success of their quest; but the most coherent account credits them with all the astuteness usually ascribed to the Sons of Loyola. After securing the services of some sturdy field labourers, and guided by directions contained in certain musty and time-worn documents, which they consulted from time to time, they set the men to work with shovel and pick. Hours of delving brought nothing to light, though the excavations were many and deep. But towards nightfall, just when the workmen were convinced that they were on the point of unearthing sundry pots of gold, they were paid off, and dismissed with the assurance that all their labour had been in vain, and that there was certainly nothing of value to be found. They, poor fellows, were simple enough to accept the declaration, much to their regret later on; for was it not certain that the two wily strangers, under cover of darkness, had returned to the spot, and with a few well directed strokes of the mattock had laid bare untold treasures? With these they decamped, nor were they ever seen in the neighborhood from that day to this.

The manuscript account of Father Felix Martin's expedition to Simcoe County in August, 1855, together with several interesting plans and sketches, is still preserved in St. Mary's College Archives; and it is much to be regretted that it was never published. This by way of digression.

The Old Fox Farm and Bone-pit.

The horses were *inspanned*, and taking leave of Mr. Colley, our most obliging host of the "British Arms," who had done his utmost on this, as on a former occasion, to make everything comfortable for us at Coldwater, we drove out once more towards the township line. Our party was made up of the same four, and our objective point was Mount St. Louis, Medonte. In the sites lying north-east of this hamlet we were in hopes of detecting some feature that might lead to the identification of the spot where St. Ignace I. had stood. So far, I perfectly agree with Mr. Andrew F. Hunter that the most likely site is that of the east half of lot 16, concession VI., Medonte. The distances from both St. Joseph II., *Teanaostaiæ* (The Cleland and Dunn farms, lot 53, concession I., Flos) and St. Jean Baptiste (near Hawkstone) would correspond with those given in the Relations.

Desirous, however, of visiting once more the old Fox Farm (St. Joachim), west half lot 20, concession X., Medonte, after driving westward along the town line, we turned southwards into the road between concessions IX. and X. The present occupant of the farm, Mr. Beatty, is the immediate successor of Mr. Gleadall. On the occasion of a former visit, while our party were closely scanning the fresh-turned furrows, in quest of shards, or any other trifle to bear off as a memento of the place, the ploughman volunteered the information that he was well aware that treasures were hidden on the land—were he only able to locate them.

This village, though strongly posted on rising ground, was not formidable by its position. The site at one time was looked upon as that of St. Ignace II., but it is far too remote from Ste. Marie I. to admit of such a theory being tenable. It was in all probability here that the village of St. Joachim stood in missionary times.

From the Fox farm it was but a short drive to the old bone pit lying close to the road on east half of lot 18, concession IX. Fathers Martin and Daly had examined the ossuary as early as 1855. It has lost its symmetrical appearance from having been frequently disturbed. The bones, in some places, lie quite near the surface.

Through the Region of St. Ignace I.

Continuing on our way towards the south, as far as the side road between lots 15 and 16, we struck westward through the hamlet of Moonstone, formerly Medonte. Our first disagreeable experience of bad weather began at this stage of our journey. From August 11, date of our departure from Montreal, it could not have been more favorable. It had held well to fair until Sunday evening, August 17, when we had a premonitory shower at Orillia. For the last few hours the clouds had looked sullen and threatening; and, just as we were drawing near that part of Medonte Township which held what

most interested us, the rain came down in steady and business-like showers, rendering the roads, in some places, all but impassable. In fact, owing to washouts and to the barriers raised across the road as warnings, which were but dimly discernable in the dusk, we were, on one occasion especially, as we were descending a steep declivity, within a hair-breadth of disaster. And though the horses had no secure footing, and slid for yards at a time in the slippery clay, our skilful driver managed in time to turn the obstacle without landing us all in the deep gully by the wayside.

This was all very unfortunate, the more so seeing that on our last expedition across the township we had had just such another disagreeable experience. To stop and examine the several sites along our route was, under prevailing difficulties, out of the question. Consequently, we reluctantly drove by the farms of Andrew Robertson (east half lot 15, concession VII.), of Richard Watson (east half lot 16, concession VII.), of Henry Heaslip (east half lot 16, concession VI., the probable site of St. Ignace I.), of Anthony Hughes (west half lot 15, concession V.), of Francis Barr (east half lot 15, concession IV.) and of James Loftus (west half lot 14, concession V.)—all of which we had intended to examine. We reached Mount St. Louis by the road between concessions IV. and V., and proceeding westward on that between lots 10 and 11, called upon Mr. Fitzgerald, who had received us very hospitably once before.

The Oldest Inhabitant.

During our outing in 1899, we had endeavored to pay a visit to Mr. John P. Hussey, one of the pioneer settlers. He had heard through the local papers of our projected expedition, and had courteously extended to us an invitation by letter as early as March in that year. Meanwhile he had removed from the immediate vicinity of Mount St. Louis, and thus, much to our disappointment, we failed to meet him. Mr. Fitzgerald informed us that he now resided with his daughter but a short distance down the line between concessions III. and IV., so we determined not to miss him this time.

In his manuscript "*Voyage et Recherches dans l'Ancien Pays des Hurons Août 1855*," Father Felix Martin gratefully expatiates on the very cordial reception given him by Mr. Hussey, and on the many services rendered by him and his generous fellowcountrymen of the "Irish settlement," during the Father's stay in that district. In fact, without the co-operation of this most obliging host, Father Martin's trip might have proved anything but successful.

On our part, we were delighted with our interview, and learned much that was useful from the sturdy nonagenarian—some would say centenarian—whose retentive memory might well be exploited in the interests of local history. What with the rain beating down without, and with the verbal flow of many interesting reminiscences within, we were loath to take leave of Mr. Hussey. But as all things must end, the session was adjourned, and wishing the veteran many more years of life and prosperity we once more faced the downpour and were soon on our way to Hillsdale.

After much discomfort, and with a general sense of disappointment at having been frustrated, throughout the day, in our attempt

at identification of sites, we finally drew up before Mr. John Shannahan's hostelry.

SCANONAENRAT OR ST. MICHEL.

Tuesday, August 19, without being an ideal day, gave better promise than the last. Our objective point was Penetanguishene by rail from Elmvale.

The country around Orr's Lake, quite new to me, must always be of great interest, associated as it is with St. Michel or *Scanonaenrat*. So striking out on the Penetanguishene road we made half the circuit of the lake, to the east and north.

When it is remembered that the only certain test of the correctness of the positions to be eventually decided upon as those occupied by the towns of *Teanaostaiaë* (or St. Joseph II) and St. Ignace I., is the distance of St. Joseph II. from St. Michel, and in turn, of St. Ignace I., from St. Joseph II., it will be recognized how very important is the accurate placing of St. Michel on the map of Huronia.

The only data available which could be of any assistance in securing this result may be summed up in a paragraph or two.

And first, the meaning of the word. Deriving it from *Skat-annona-aenrat*, *Scanonaenrat* would mean "The one white sandy river bed;" though *annona*, besides the bottom of a lake or stream, means also, a cliff, a treasure, a provision laid by, a draught of fishes, a habit or custom, the back.

It lay on the trail from *Ihonatiria* to *Teanaostaiaë* (Rel. 1637, p. 161, 2 col.) It was three leagues from Ste. Marie I. (Rel. 1646, p. 78, col. 1). It was, moreover, "*cinq quarts de lieue*"—a league and a quarter—from *Teanaostaiaë* (Rel. 1639, p. 72, col. 1), or even less: "Our Fathers having arrived at the place called '*la mission de St. Michel*' . . . set out again with the intention of consulting with our Fathers at St. Joseph, one league distant." (*Du Peron's letter—Carayon's Première Mission*, p. 180.)

Were we to be wholly guided by Ducreux's inset map, there would be no mistaking its approximate position. It is set down there between Orr's and Cranberry lakes, rather nearer the latter, and to the north of the watercourses issuing from the two, but as Ducreux has it, joining them. Such are the data; but they cannot all be made to agree with mathematical precision. Nor have I heard of any sure indications of Indian villages having been found along the arc whose radius would be three leagues with the centre at Ste. Marie I. Still as this distance is given it must be taken into account.

Teanaostaiaë or St. Joseph II., the Cleland Farm.

I have spoken with assurance of the Cleland farm being the site of St. Joseph II. The indications of a large village on the spot are unmistakable. An arc having for radius one league and a quarter and its centre on the Cleland farm would intersect the arc mentioned above (rad. 3 leagues, centre at Ste. Marie I.) to the west of Orr's Lake, about lot 69, concession II., Flos. The Cleland site is the most southerly of all the Huron villages, on the direct trail south to the Neutral Nation. (Cf. *Rel. 1641* p. 74, 2 col.)

Michel), may be reached. For it strikes one as quite inconceivable that a principal town like St. Michel, representing in itself a whole separate tribe, should have been set down between two such salient topographical features as the twin lakes, unless with forethought and most deliberate intention. So it would seem almost illogical to seek for any remains of its site elsewhere, for instance, to the east of Orr's Lake.

THE FLANAGAN HOMESTEAD AS TEANAOSTAIAE.

And yet there is a site, other than the Cleland Farm, which in some respects, if not in this, has stronger claims to the distinction of being the "Bulwark Village of the South," that is, the site on the west half of lot 7, concession IV., Medonte. In the first place it occupies a more commanding position than the former, which would seem to tally better with Bressani's observation (*p.* 247): "As (the enemy) could approach it on one side only, on account of the elevation of its site, those of the inhabitants who were so inclined had time to escape on the other side." As yet I have not had the advantage of visiting this site myself; but Mr. Andrew F. Hunter, in his monograph on Tiny Township (*p.* 77), says that it is on the top of a very steep hill, 250 feet or more in height, that thick deposits of ashes had been found there together with many Indian relics.

Though Father Martin makes no mention of the number either of lot or concession, this is certainly, from the description given, the site he visited at the "Irish Settlement" in 1855, and of which he speaks on pages 92 and 93 of his manuscript: "I examined this site," he says, "with care. There is no doubt as to there once having been an extensive Indian settlement on the spot. Unequivocal signs of this are yet discernible. The surface soil is still littered with shards of pottery of Indian make. . . . The most interesting article found, a short distance away, and at about the distance from the village at which the missionaries' cabin might have stood, was the remains of the base or [rectangular] stand either of a candlestick or crucifix in brass.* It had been turned up by the plough. It must have been subjected to the intense heat of a conflagration, as part of the metal was fused. The site of which we speak is moreover admirably fitted for defence. It crowns the height of a bluff, from which the view ranges far and wide over a broad valley, watered by the stream whose outlet is near Coldwater."

In a straight line this site would be five leagues from *Ossossanë*, a little over four from Ste. Marie I., and not quite eight from *Ihonatiria*. Comparing this position with that of St. Joseph, as set down on Ducreux's map, it will be remarked that its bearings from Orr's Lake are much the same. Its proximity also to the upper reaches of the Coldwater is quite in keeping with Ducreux's mapping.

All these particularities would seem to bear out admirably the theory that it is really the spot where St. Joseph II. stood—its commanding

*Among the coloured sketches, added in the form of an appendix to the M.S., all of which were executed by Father Martin himself, there is an excellent one of this relic. it is not said to whom it then belonged, nor have I ever heard of its being mentioned since.

position, its correct distance from several known sites, and the finding there of the half-melted rectangular stand, resembling far more that of a crucifix than aught else. Such a base precludes the idea of a portable crucifix; while if it belonged to a candlestick, it would be far too elaborate for anything of that kind in use in a missionary's wretched cabin. In either supposition it could only find place on an altar. The burning of the village is described in *Relation 1649* (p. 4, 1 col.), and that of the church is expressly mentioned. It was into the flames consuming the structure that the lifeless body of Father Antoine Daniel was cast.

On the other hand, though it could be considered the most southerly site, it could scarcely be said to lie on the direct trail to the Neutral Nation. But the two leagues separating it from the nearest point on the western side of Orr's Lake, is the most perplexing difficulty to explain away. Father Du Peron's estimate of one league from "*la mission de St. Michel*" might possibly be interpreted to mean one league from the nearest encampments scattered around Orr's Lake, some possibly to the east, all of which, together with the town itself, would go to make up the Mission of St. Michel. But the "*cinq quarts de lieue*" to the residence of the local missionaries, written out in full in its quaint phraseology, *five quarters of a league*," can not be explained by a mistake of the printer, who might, were it written in figures, take one for another. So that if we accept this distance as correct, and set down St. Joseph II on the west half Lot 7, Con. IV, Medonte, St. Michel must be ousted from its well defined position, and placed to the east of the lake (B). This would be taking a very great liberty with the work of one who had his information at first hand.

IMPORTANCE OF IDENTIFYING ST. MICHEL'S.

With our present knowledge of the village sites in this part of Huronia, our only choice lies between these two sites (the Cleland Farm and west half of lot 7, con. IV, Medonte). Now were the site of St. Michel fully ascertained it would simplify matters wonderfully in determining our choice.

As for the site, lying across the Penetanguishene Road, partly in Flos and partly in Medonte, numbered lots 53, and which was explored in 1899 by Father Wynne, Mr. Brokovski and myself, it is much too far south to admit of its being St. Joseph II. It is a prehistoric site, in the sense that the village was no longer in existence at the time of the resident missionaries.

If I have digressed to this extent, it is to show the great importance of determining, before all else, the site of St. Michel, and not, because anything of much importance came of our investigations in this quarter during the last summer. The most that was secured by our party in the shape of information, was a more correct idea of the nature of the country, through which we passed, in the immediate vicinity of Orr's Lake; still we hope that even this will be turned to good account before long. We hope also that meanwhile those residing nearer this interesting locality will be able to take advantage of the data submitted above, and of the rather dry disquisition accompanying them. One conclusion we drew with conviction, and that

was, that it would be useless, in view of the general contour of the landscape, to look for St. Michel much to the west of Orr's Lake, and certainly not anywhere near Cranberry Lake.

THROUGH THE REGION BETWEEN THE LAKES.

By telephone from Hillsdale we had made an appointment with Dr. McClinton of Elmvale, and he very obligingly met our party at Mr. A. Bowman's farm (lot 72, con. II, Flos). The doctor had, some eight years ago, together with Mr. David Boyle, made a thorough inspection of the bone-pit discovered by Mr. Bowman on his land. Mr. David Boyle recorded carefully, as his wont, all the particulars relating to this ossuary in his Archæological Report of 1894 95 (*p. 42*). Nothing new was elicited by our visit. Being in quest of village sites, which are betokened not by bone-pits but by ash-beds, of which we found no trace, we kept on towards the north by the road between I. and II. concessions, Flos, that we might at least form a correct idea of the lie of the land between the two lakes.

Turning to the west on the county line between Tiny and Flos, as far as the cross-road between lots 5 and 6, we followed the latter, journeying south through a comparatively flat country, until we reached Elmvale. We dined at the "Queen's," which, by the way, in its appointments is exceptionally neat and attractive for a country inn. The proprietor, Mr. Broderick, deserves our thanks for his kindness and attention.

It was here we parted company with Mr. Brokvoski and Mr. George Hamilton. To these two most companionable guides both Father Quirk and myself wish to express once more our deep sense of gratitude for their ever-ready and patient co-operation in what, under other conditions, might have proved very wearisome explorations.

A CLUE TO THE WHEREABOUTS OF A PHENOMENAL ROCK.

An early afternoon train from Elmvale soon landed us at Penetanguishene. Here we found all in commotion, and everybody at the presbytery bustling about, as there was a bazaar for the Memorial Church in full swing. The house was full of guests, and, rather than add to the difficulties of the situation, we resolved to push on to Lafontaine.

While awaiting the conveyance which was to bear us to our destination, we had time to make friends with several of the reverend clergy. The delay was indeed providential, for among our newly made acquaintances was the Reverend Father Jeffcott, of Stayner. Of course the purpose of our wanderings and zig-zag journeyings across the country was discussed; and, to prepare the Reverend Father in good season for the infliction, I announced the more than probable expedition which, a kind Providence favouring, we fully intended to push through his part of the country the following summer. It certainly had not been our intention to take in, on that trip, Nottawasaga Township, much less the adjoining townships in Grey County, for our charts were not quite ready, and we had no fixed itinerary mapped out; but the Father's invitation was most cordial, and he suggested that we should drop in on him that very season.

Mentioning incidentally the famous Rock *Ekarenniondi*, which we hoped to discover either in Collingwood or in Osprey township, Grey County, he told us that he had heard of some such freak of nature in, or not far from what the good people of the Hills called the Devil's Glen. The name was uncanny enough to suit us, and quite suggestive of ghosts, Huron, or of any other nationality; but then, there might be much or little in the appellation. So, however much we felt inclined to accept the invitation, we dared make no promise; indeed the vacations were fast slipping by, and a busy year's work was awaiting us at Loyola. Prudence suggested that we tender him our thanks; we bade his Reverence a non-committal *au revoir*, and hoping for the best, were soon on our way towards Lafontaine.

ONNENTISATI OR "EVERGREEN GLADE."

To the west of Penetanguishene Bay there is a high plateau, probably over two hundred feet in elevation, with very steep ascents from the east and south. It is somewhat inland, and, to be more precise, comprises lots 9, 10, 11, 12, 13 and a part of 14 in the two concessions XIV. and XV. It really extends somewhat further south, well into concession XIII. In Huron times it bore the name of *Tandehouaronon* * Mountain (*Rel. 1637, p. 149*), and was, as the Relation puts it, near the Town of *Onnentisati*,† which has not yet been identified with any known village site.

It was partly around this hill we drove, skirting it on the north-east and north. Being guided solely by what data we have in the Relations, I should say that *Onnentisati* ought to be found somewhere along the east or north-east border of the plateau. I had come to this conclusion in 1899, though that same year Father Wynne and myself had found indications of a village site at the foot of the bluff, to the southeast, on Ladouceur's farm, north half of lot 10, concession XIII. The ash-beds, however, did not seem to be extensive enough to warrant a contrary conclusion, nor was there any local tradition of their having been found to cover a greater area when the land was first tilled. I might add here, that, on our drive back to Penetanguishene, this last trip, we crossed the ridge from west to east, by the road between concessions XIV. and XV., and were much impressed by the adaptability to purposes of defense of the projecting spurs facing the east.

THE "LAND'S END" OF THE HURONS.

On the following day, Wednesday, August 20, we were weather-bound at Lafontaine; but we spent the day, in spite of the rain, agreeably enough, and in excellent company. For, not to speak of Father Beaudoin, the local pastor, whose whole-souled hospitality would scatter sunshine through the densest of dismal skies, Father

* The word may mean either Hill of "The Sand-dwellers," or Hill of "The Beaver Skin People."

† From *Onnenta* (*Rad. Hur. 1751, p. 290, 2 col.*) a fir-tree, any tree exuding gum and not deciduous; and *isati* (*Id. p. 238*) having a recess, or inner corner, a receding angle, as *etiotenrisati*, in the corner, the receding angle, the recess of a palisade or bastion (*Id. Ibid.*); consequently, a village standing in the recess of a grove or forest of fir-trees.

Barcelo, of Midland Parish, had driven over, and his genial presence completely reconciled us to our enforced inaction.

The all-engrossing topic was the possibility of future discovery in the country. And when Mr. Beaudoin, the postmaster of La-fontaine, who is familiar with every acre of Tiny Township, joined us with his party, and Mr. Longpré, our cicerone of '99, dropped in that evening, we were soon in possession of all the changes which had taken place, since our last tour, in the ownership or occupancy of farms where we had examined together village sites or bone-pits.

Plans were laid for the morrow. On our former visit to this part of the Huron Country, the surroundings of Todd's Point had been explored as much as the heavy growth of timber would allow, and a good photograph taken of the long, flat, mushroom-shaped point, which stretches out into the lake from the foot of the bluff on which *Ithonatiria* had stood. For this reason we now resolved to beat over what ground we could to the west of Thunder Bay towards Cedar (Clover) Point. It was there that the town of *Tondachra* * was situated, one league to the north of *Arontaen*. (*Rel.* 1637, p. 112, 1 col.)

The day (August 21) turned out fine, and we picnicked at Cedar, otherwise Clover Point, in full view of Christian Island, the last refuge of the panic-stricken Hurons before their final dispersion. This name of Christian Island, though generally regarded as quite a modern appellation, would seem to have been taken from the Relations. The twelve Huron chiefs, who pleaded so eloquently with the missionaries not to abandon, but to follow them to St. Joseph's Island, as it was commonly called by the Fathers, assured them "That all the unbelievers among them, who had survived, had resolved to embrace the Faith, and that they, the Fathers, would make of this Island an Island of Christians." (*Rel.* 1649, p. 27, 2 col., see also *Rel.* 1650, p. 3, 1 col.)

The Huron name was *Gahoendoë*,† as we find it on Ducreux's Map, or *Ahoendoë*, as given in the Relations (1649, p. 29, 1 col.).

* The *Tondakea* of Ducreux. Derived either from *aton* (*Rad. Hur.* 1751, p. 34 et cf. *atonation* p. 35) to be lost, to vanish, to die away little by little; or from "*ata* (*Id.* p. 198) in compositione et extra (le bout, l'extrémité de quelque chose)," the end or extremity of something; which word, however, is generally used as a verb at the end of compound words; and from *ondechra*, *ondecha* (from *onda*, space, extent) which means land, country; see R. H. p. 295. Hence *ata-ondechra*, *atondechra*, or *tondachra*, land's end.

† *Gahoendoe* and *Ahoendoe* ("a" with iota subscript) are two forms of the same word, and are pronounced alike. Potier says (*Hur. Gram.* p. 1) "g" vulgo sonat ut iota [i], aliquando tamen ut apud nos, v.g.: *ochingot* gras [fat] etc." On the next page, under the heading "De 'i' seu 'j' (iota)," he remarks: "Haec virgula seu semi littera 'i' vel 'j' maximi est usus; primo, ad pronuntiandum, v.g. *atatiak* (a with iota subscript) dic *iatatiak*, etc. Ante alias vocales idem, sed lenius quasi prope 'i' non vero omnino; usus docebit." Something, very likely, between a "g" and a "y"—*ya-when-doë*. The precise orthography is given by Potier (*Rad. Hur.* p. 238) "*AhSênda* (*akShenda*) [initial "a" with iota subscript] espace de terre séparée, ile;" and (*Id.* p. 241) "*aSendo*, il y a une ile dans un lac, une rivière," to which the suffix "ae" is added, making *ASendo-aë*, *ASendoë*." This suffix "ae," which answers the question understood *ubi? quo? qua? unde?* (see Gram., p. 87), is in constant use in names of places, v.g. *Andiataë*, at the bridge. But in compounding words it not unfrequently happens that the final "e" alone remains after the other elisions. Thus Potier remarks (*R.H.*, 1751, p. 82): "Porro aliquando accidit ut in compositione nominum cum verbo 'ae' [both vowels with iota subscript] fiat contractio ita ut vix appareat pars ulla verbi, v.g. . . . *a te ondeche* (pro *a te ondechrae*) par toute la terre," everywhere on earth. This is just what has happened in the case of *AhSendoë*.

It lay to our left, while *Ondiatana** lay well to our right, opposite *Ihonatiria*.

We failed, on our return trip from the Point, to meet either Mr. William Richardson or Mr. John McLellan, and thereby lost the opportunity of going over the ground (east half of lot 19, concession XX., and lot 19, concession XXI.), which there is every reason to believe is the site once occupied by *Tondachra*. But, as Mr. Andrew Hunter has already placed on record all the interesting particulars bearing on this site, there is less room for regret. "Its situation" he writes (*Tay. p. 10*) "is on a kind of high lake terrace or plateau overlooking Georgian Bay with Beckwith Island just opposite. The land had been cleared four years previous to our visit, and it was during this operation that the first evidences of Huron occupation had been observed. These consisted in the usual ash-beds containing pottery fragments in abundance and other relics common to such sites." This profusion of potsherds would be quite sufficient to differentiate it from the Fort the Iroquois constructed somewhere on the mainland opposite *Ahoendoë* or St. Joseph's Island, late in the autumn of 1650 (*Rel. 1651, p. 5, 1 col.*), that is, after the missionaries with a number of Hurons had left for Quebec.†

On our homeward drive we proceeded as far west towards the lake shore, north of Cockburn Point, as was practicable, to examine the lie of the land in that direction. In this vicinity stood, in Sagard's time, the town of *Quiéunonascaran*, so often mentioned by him in his History and his "Grand Voyage." It still existed at the time of the Jesuit missionaries, but had lost much of its importance, and had been split up into three villages bearing conjointly the same name of *Khinonascaran* (*Rel. 1637, p. 128, 1 col.*). One of the possible meanings of this word is "The dragging place at the opening of the mouth," bearing some reference, no doubt, to its position near the opening of the straits between *Ahoendoë* Island and the main land; and perhaps also to the trolling grounds near by.‡

* This form is from Ducreux's Map, but *OndichaSan* is that given in Relation 1637 (*p. 149, 2 col.*). It is derived from *Ondia*, a point of land (*R.H., 1751, p. 295, 2 col.*); *echi* beyond (*Hur. Gram. p. 68*) and "*aSan*, avoir quelque chose à soi [to own]" (*R.H. 1751, p. 157*). Thus *Ondia-echi-aSan*, contracted according to rule (*Hur. Gram. p. 66*) *OndichaSan*, meaning: Beyond the point belonging to us, or, The Island Off our Point. And in fact, as it lies off Todd's Point, and as Relation 1637 (*p. 149, 2 col.*) informs us that *OndichaSan* was a large island which the Fathers had in sight from where they were, i. e. *Ihonatiria*, it is a certain indication that the latter hamlet was situated near Todd's Point.

The *Ondiatana* of Ducreux is a Huron word, *Ondia-ata-San*, contracted *OndiatSan*, to which a Latin dress has been given to make it an adjective agreeing with *insula* in the feminine. Etymology: *Ondia*, a point of land; *ata*, the end or extremity of; *San* or *ouan*, ours; meaning, "The island of (genitive) the end of our point," or "belonging to our point."

† The Fathers abandoned Fort Ste. Marie II., on St. Joseph's Island, June 10, 1650 (*Rel. 1650, p. 1, 1 col.*)

‡ There are several possible derivations:—

1. *Chi*, beyond *Hur. Gram. p. 91*; *aSinnon* or *innon*, both of which mean to drag, to trail, to haul, (*Rad. Hur. p. 163*; *askarent*,) the opening of the mouth. Thus, *Chinnon-askarent*, the latter root not entering properly into composition but being simply added, making *Khinonaskarent*; *rent* or *rant* sounding alike when pronounced by a Frenchman. The meaning would be, Beyond the trolling grounds at the opening of the strait.

That it was customary among the Hurons to trawl or troll for fish, as is the practice nowadays throughout Canada, is evinced by an example given by Potier of a com-

Its probable position would be in the XVIII. or XIX. concession, on the high ground not very far from the shore line. The Relation 1637 (p. 128, 1 col.) gives two leagues as its distance from *Ihonatiria* (Todd's Point). Sagard, whose leagues, by the way, were remarkably short, places it four or five from LaRochele, later *Ossossanë* (*Histoire*, pp. 206, 207), and the same distance from *Toanchë* (*Toanchain, de la Roche Daillon* ; *Toënchen, Sagard*). Our time was too limited to allow us to look very closely for any exceptional irregularity of surface in the neighbouring fields, which though high above the lake seemed uniformly level. One lot did not hold out more advantages than another, while all were suitable for ordinary village sites. For this reason nothing short of the actual discovery of ash-beds in sufficient number will avail in the singling out of the exact spot where *Rhinonascarynt* stood.

Arontaen Near the Straits.

From the concession line (XVIII.-XIX.) we turned south between lots 23 and 24, and reaching the next concession road (XVII.-XVIII.) proceeded eastward along it as far as the farms of the two Brunelles, father and son (lot 21, concession XVII.), adjoining which on the east (lot 20 same concession) lies the probable site of *Arontaen*.* The ground is somewhat higher on the latter lot, but as we saw it was wooded, with the limited time at our disposal, we made no attempt to examine it critically. Mr. Louis Brunelle, Sr., kindly presented us with an axe found on his land. It bore on both sides a triple *marque de fabricant*, the impress of a steel cylindrical die with a cross filed into the end. Another axe of French make, which we gratefully received as a gift at Lafontaine Presbytery, came from Mr. J. B. Dubeau's farm, lot 14, concession VII., Tiny, one of the three sites of *Ossossanë* we visited in '99. Its markings were different. It had four impressions on either face from a die filed across, after the fashion of a Union-Jack with two crosses intersecting at the centre, showing that it came from a different forge. It might be mentioned here that the stamp, noticed on all the axes found, resembles in no wise a *fleur-de-lys* as some have supposed.

We had just time to take a run down, by the road between lots 18 and 19, to the Old Plum Orchard, dating back to missionary times,

pound word from the same root *ašinnon*: "*enditsa Šinnon*, traîner son appât, son amorce" to trail one's bait, and a few lines further down "*ašindeti*, traîner une chose avec un autre v. g." *enditsaŠindeti*, vel *ostiesara*, vel *aontsentā* hameçon, ce avec quoi on traîne l'amorce," a fish-hook, that by means of which the bait is trailed.—*Rad. Hur.* p. 163.

2. *Xa*, *Hur. Gram.* p. 68, here, hither, thus far, hence, etc. This word may replace *Chi* in the above combination with a corresponding change of meaning: At the trolling place, etc.

3. Or taking *innon*, with a tilde over the *n*, which signifies thunder, *Chi-innon-askaren*, Beyond Thunder Opening, Beyond "Thunder Bay." This would give the alternative appellation of Douglas Bay quite a venerable origin.

* Derivation: 1. *Arōn*, *Rad. Hur.* 1751, p. 61, things sundered ; "*te vel tende duo*," *Hur. Gram.* p. 102, two ; it is also the sign of the dual, *Ib.* p. 26 ; "*aen*, y avoir quelque chose en quelque lieu, v. g. [among other examples], *andataen*, il y a un village, et alia innumera." *Aron-te-aen*, *Arontaen*, the two shores are sundered, stand apart. Thus *Arontaen* a strait in general, while Potier gives *Karontaen* as meaning specifically Detroit (*Gram.* p. 156, 1 col., line 21), the prefix *Xa* indicating the place : Here there is a Strait.

2. It could also derive from *Aronta*, a tree or trees (*R. H.* p. 293, 1 col., and *aen*.)

and return to Lafontaine before nightfall. It stood, in concession XIV., on the rather steep banks of the little stream flowing into Nottawasaga Bay near the site of the Huron village of *Arenta*,* but nothing now remains of it.

The Old Fort.

Much to our regret we left this interesting part of the old Huron country on the following day, August 21, crossing over the hill near *Onnentisati*, as I said before; and without stopping at Penetanguishene drove directly to Midland where we had planned to spend the Sunday. We fell once more among friends—to fare otherwise seemed impossible—they were ubiquitous. Father Barcelo was expecting us, and his hearty welcome made us feel quite at home from the first.

Saturday morning, August 22nd, saw us on our way to Old Fort Ste. Marie I. In 1899 we had carefully verified Father Martin's measurements, consequently our visit was not prompted by a thirst for discovery, as no new fact, or hitherto unobserved feature was at all likely to be noted; but it took on rather the semblance of a pilgrimage of enthusiasts, who would never forgive themselves for having passed within easy reach of those ruins, by far the most venerable within the wide limits of our great Province of Ontario, without doing them reverence.

We wished to stand again on that hallowed spot, to look back two centuries and a half, and witness in fancy that saddest of dramas, enacted in the depths of the Canadian forests. There grouped together were priest and neophyte and unbeliever, silent onlookers of the work of destruction. They saw—nor was protest uttered—the torch put to the sacred pile. The flames, fanned by the midsummer† breeze, leaped from palisade to roof, from roof to machicolated gallery, and sprang circling round, and upward, to the tapering spire. With the fall of the sign of Redemption which capped its final the fondest hopes of the missionary died away, while nearby stood the Huron gazing unwittingly at the funeral pyre of his Nation.

"But," writes Father Ragueneau with masterful simplicity, "it was unavoidable; we had to leave that old home of Ste. Marie; to leave those edifices, unpretentious as they were, but masterpieces of art to the eye of the savage; to forsake those cultivated acres which promised us a rich harvest. We had to abandon those haunts, which I might well call our second Eden, our innocent delights, since they had been the cradle of this Christian people. Here had been reared God's temple and the dwelling of the Master's labourers. And lest our all too impious enemies should profane this blessed abode, or derive any advantage from it, with our own hands we applied the torch, and saw

* "*Arenti*, y avoir une embouchure de rivière en tel endroit," (*R. H. p. 180*); "*Areencha* embouchure de rivière." *Id. Ibid.* "*At*, quelque chose être dans une autre." *Id. p. 19.* Hence *Arenti-at*, *Arentat*, *Arentat* (*Cf. Arentet*, in *Rel. 1649*, 2 col.) at the river's mouth.

†The wooden superstructure of the Old Fort and church was given over to the flames on June 14th, 1649, and by 5 or 6 in the afternoon the last of the missionaries and Indians had embarked on rafts or in canoes for Ahoendoe.—*Rel. 1650*, p. 3, 1 col.

consumed before our eyes in one short hour the handiwork of nine or ten years of toil."—(*Rel. 1650, pp. 2, 3.*)

Our party approached the spot without misgiving, counting on finding it undisturbed at least, and as undesecrated as God's acre. We expected to see a wretched ruin, as heretofore, flaunting its rank growth of weeds to the winds, or with them draping its shapeless mounds, or fringing its crumbling masonry—sure token of neglect, but not of vandalism. It was with dismay that we perceived, as we drew nearer, a modern summer lodge with stable and indecorous out-houses usurping the space on its southern front, and aggressively stretching up almost to the very foot of all that now remains of the south-eastern bastion.

It was not altogether a matter of surprise, however much it was of sorrow, that the utilitarian spirit of the day had been allowed to play havoc with what history held as sacred. For on our first visit to the Old Fort we protested, it would seem in vain, against the ploughing up and seeding of that very portion of the land, insignificant in extent, across which ran the line of entrenchment and palisade, thrown up to protect the hospice and camping-ground of the wayfaring Hurons. This, thanks to a difference in colour and the barrenness of the clay, was yet plainly discernible. But the modern intrusive structure has obliterated it completely. It is guilty of more than this, it holds in its foundations, we were assured by a neighbour, stones conveniently quarried from the adjoining ruins.

When, in 1855, Father Martin visited the Old Fort, he found the walls were yet four feet above ground. Those who have visited it of late know how little of this now remains. Providentially, exact measurements were taken in season, and correct drawings still exist; but private enterprise can do little to stay the inroads—not of time—but, to put it mildly, of "individual unappreciativeness," while it can effect even less in the way of restoration.

In European countries the civil government takes over the care of public monuments and places of historic interest. In America there are so few ruins to which cling the memories of a glorious past, that there is all the more reason to save what little there is of venerable from being wholly swept from the face of the land.

I feel confident that every lover of the Canadian past, whether recorded in legend or in story, will join in respectfully petitioning the Ontario Government to secure possession of the two old forts, the one just mentioned above, the other on Christian Island, together with a few acres of land around them, and restore them as much as can be to what they were when first brought again to light in the last century.

It was with a feeling of something very much akin to indignation, that we turned from the ruins of the Old Fort (*Lot 16, con. III, Tay*) to get ready for our drive back to Midland. We were already seated, and on the point of taking leave of Mr. Chales, at whose place we had left our team, when he presented us with an interesting relic, the upper portion of a brass candle-stick which had been ploughed up very near the Fort. The shape was familiar enough, but it was unusually heavy and old-fashioned in make, having been cast with a core and finished on the lathe. It will be carefully treasured as a memento of Old Ste.

Marie I., and as a reminder of the donor's kindness. At Midland we found Father Beaudoin who had driven all the way over from Lafontaine to take leave of us once more.

Further Tidings of the Rock.

While we were yet the guests of Father Barcelo, we had occasion in his company to pay a visit to Mr. Michael O'Hare, senior, proprietor of the Midland Woollen Mills. We found him surrounded by his numerous family. A grandfather already, though comparatively young in years and full of vigour, he presided over his assembled household with kindly and patriarchal dignity. He had been a resident of Creemore, in Nottawasaga, for many years, where his boys had been brought up, and as boys they had ranged over the township far and near as boys only know how. They confirmed all we had heard from Father Jeffcott about the Rock, the Devil's Glen and other places of interest. But whether it was owing to our profound ignorance, both of the localities described and of the actual bearings one from the other of the points mentioned, or to a too great insistence on features which appealed more to the fancy, but were less essential to our purpose, we came away with but a hazy notion of the exact position of the important landmark. In fact the impression left was the Devil's Glen and the monumental Rock lay in different parts of the township.

Still we had enough to determine us to put off for a day or so our departure for Montreal, rather than postpone for another year all attempts to find *Ekkarenniondi*. In pursuance of this resolve a despatch was sent forthwith to Stayner lest we should take Father Jeffcott wholly unawares.

Stayner.

Monday, August 25, Father Barcelo himself drove us over to Penetanguishene, where we took leave of him. It is to be hoped that the future holds in store more than one opportunity when our debt to his Reverence and to his *confreres* may be required.

Not so much to escape a long delay on a bare platform at Colwell Junction, as to foster friendly relations with an old acquaintance, we ran through by train to Barrie, and spent a most agreeable hour or two with Dean Egan. By 8 o'clock we were on our way to Stayner.

Stayner is a little town on the Collingwood branch of the Grand Trunk Railway, in Nottawasaga, the most western township of Simcoe County, and lies in the flat lands between the old Huron and the Petun countries, but nearer the latter. Reverend Father Jeffcott, whom we had the pleasure of meeting at Penetanguishene, on August 19, had lately been placed in charge of the parish. Two young ecclesiastics, Edward Kerby and John Purcell, both of whom had graduated in theology at Montreal that summer, the former securing a D. D., the latter an L. Theol., were guests enjoying the openhanded hospitality we had come to share.

It did not take long to agree upon a plan of campaign for the morrow. The deadliest foe we were likely to meet with on this expedition, it appeared, was the unobtrusive ground-hog. In consequence one lethal weapon was deemed sufficient protection in view of

all possible encounters. This was handed over to the D. D., who, not being in Holy Orders, ran no risk of incurring any irregularity. It was a master-move of strategy as events proved.

Beating Through Nottawasaga.

Tuesday morning, August 26, dawned bright and full of promise. The vehicle was stored with what provisions were necessary for a day's outing; and our party of five drove out on the Duntroon road at a brisk trot, heading west towards the Blue Hills. As we drew near Duntroon the landscape improved wonderfully. In the distance directly in front of us rose a ridge of limestone formation, which stretches, we were told, across the whole country. It is the same as that which forms the high ground at Lockport in New York State, and through which the Niagara River has, in the course of centuries, worn its way from Queenston Heights to Clifton and the Falls. It traverses somewhat diagonally Nottawasaga township, from south-east to north-west, and reaches Lake Huron to the west of Collingwood.

In many places its eastern edge is not precipitous, but straight ahead of us it stood out like a headland, its rocky face plainly visible. It was certainly a prominent feature in the landscape, and we asked ourselves if it might not well be the rock we were in search of. On reflection however it occurred to us that many such bold prominences were likely to be found along this eastern fringe of the Blue Hills.

Old Indian Earthworks.

At Duntroon Village we turned south down the road between concessions VIII. and IX., to the farm of Mr. William Anderson, to examine an earthwork which Mr. David Boyle has described in the Annual Report of the Canadian Institute (*Session 1888-9, p. 11*). Mr. Anderson brought his work to a stand-still, and cheerfully accompanied us over the ground. He is one of those thrifty and hospitable Scotchmen who seem to think that they can never do too much to welcome their visitors. Very little trace of the embankment is now observable; on the hillside it may be said to be entirely obliterated by frequent ploughing.

Leaving Mr. Anderson's farm (north half lot 23, concession IX, Nottawasaga), we proceeded still further to the south by the same concession line. Our intention was to move into the uplands lower down in the township, and having once gained the heights to be guided by the information we might glean from the resident farmers. It was the safest course to pursue since the region was unfamiliar to every one of the party, even to Father Jeffcott, who had not resided at Stayner over a year.

As we advanced the country became charmingly picturesque, especially towards Glenhuron, and still further to the south, when the eye sought Dunedin and Creemore in the remote perspective. The horizon in that direction was bounded by great rolling hills intersected by deep valleys, the whole under fair cultivation. The slopes presented every variety of tint from the rich yellow of the ripening grain to the sombre green of the mountain gorge. This became more noteworthy when, leaving the concession line, we turned to the west

and toiled upwards along the side road between lots 18 and 19, until at last, safe on the tableland, we skirted for well on to a mile an exceptionally deep and narrow ravine. Its slanting sides, thickly studded with trees, shut out the sunlight and screened from view the waters of the Mad River in its gloomy depths. The name we learned later on, and learned moreover that it was appropriate. On the whole the yawning chasm had a forbidding look, and the conviction grew upon us that we were in presence of the Devil's Glen; but in this we were mistaken. The Glen was miles away.

The country we were traversing, after we lost sight of the ravine, grew monotonous; and but a little further on, the road was shut in on either side by the tall timber. In ignorance of our surroundings we proceeded in that happy-go-lucky way which at times leads explorers to discovery and oftener to discomfiture. The fact is we had met nobody for some time whom we could consult. Coming upon a newly built shanty, in a recent clearing, with every evidence of its being occupied, since its modest farm-yard was tenanted by a few stray fowls, one of the party made bold to enter the premises, but found not a soul within call. Someone thereupon suggested that we should picnic there in the woods, which suggestion was speedily acted upon. Between sandwich and sweetmeat the question, What next? was debated, and it was unanimously decided that we should keep on towards the west.

More Light.

Ten minutes' drive, or less, brought us out of the woods, and in view of a number of field labourers at work. From them we learned that we were not far from Singhampton, but nothing more. So to Singhampton, situated on the county line, we drove. Upon enquiry, the proprietor of the village hotel informed us that he had often heard it said that some miles up the country there were "rocks and caves." No one else seemed to have a clearer notion on the subject, so without loss of time we resumed our drive, but this time towards the north, along the dividing road, with Grey county to the left and Simcoe to the right.

It will be understood, from what has been said, that we were travelling a few points west of north along the plateau or table-land, high up above the level of eastern Nottawasaga. Our surroundings were now tame enough, the country around as far as we could see being gently undulating. The only agreeable break in the monotony of the prospect was Pleasant Lake, which we left behind us on our right. It lies close to the road a placid little sheet of water covering, as well as we could make out, a considerable area of lots 21 and 22, concession XII., Nottawasaga. From here on we met but one single human being on foot, apparently a tradesman, whom we accosted forthwith. He gave us, to our great relief, very precise directions to follow in our quest. We had to keep on the county line until the road came to an end, and then proceed on foot some seventy rods (so I understood), and we would come upon "the rocks and caves." After an exchange of civilities with our informant, we pushed on with more buoyant hopes, and with something definite in purpose.

For the use of any who might be tempted to explore in this direction, it should be noted here that the cross-road marked on the maps between lots 27 and 28 does not really exist, while there is one open, which is not marked, between lots 26 and 27. It must have been a little beyond lot 27, if our calculations were correct, that the road forming the line between the two counties, after a slight rise, came suddenly to an end. It was fenced across, but a gate opened on the left into a field, and a meandering road led down to a barn in a hollow. As for dwelling, there was none in sight.

The Devil's Glen and the Standing Rock of Ekarenniondi.

Three of the party kept on straight on foot across the field, Father Quirk, the D.D. and myself. Father Jeffcott and Mr. John Purcell remained near the carriage. There was quite a perceptible rise in the ground, an uneven field liberally bestrewn with boulders of various shapes and sizes. Ahead, the woods, which began with out-lying, straggling clumps of trees, but which, as we advanced, grew denser and denser and more impenetrable on account of the thick underbrush, shut out from view all that might prove of interest beyond. A narrow but well beaten path to the left first lured us on, but after a few rods it led so rapidly downwards, no one knew whither, that it was abandoned for the higher ground to the right.

We scattered imperceptibly to right and left as we moved forward, and whether it was that the trail of the ground-hog lay broad on the wold, or that some nobler game had been descried, certain it is that about this time the Doctor, who, thanks to his youth, was by far the most active member of the trio, disappeared; nor was his absence noticed for the nonce. To be plain, my reverend companion and myself had quite enough to do to push through the matted undergrowth, and make our way laboriously over fallen trunks which crumbled under pressure as we sought a foothold, without troubling ourselves about more extraneous matters. A glimpse now and then through the branches of the taller trees showed a scrap of blue sky, or a patch of that misty, undescribable neutral hue which betokens a void, a falling away of the ground and the presence of wooded hillsides beyond. It was but a fleeting, deceptive vision.

After battling against innumerable petty difficulties for what I thought was a reasonable time, I am ashamed to say, I was the first to cry enough, and to assure Father Quirk that all that was ahead of us then would be there as certainly on the morrow, when, thoroughly rested, we could return directly to the spot, now that we knew where it was. As we emerged from the thicket we presented a truly woe-begone appearance. Flushed with our vain struggles and bespangled with burs, we bore, moreover, the marks of many an encounter with branch and bramble. Crestfallen at our failure, we returned demurely enough to the carriage. Then it was that we missed the Doctor. We waited patiently, I do not know how long, that he might not be unduly hurried in his explorations; when, finally getting anxious, the party—Father Jeffcott, of course, leading the chorus—sent up a succession of war-whoops that must have uncomfortably impressed the Petun warriors in their graves. But no Doctor. Not even did

the echoes deign to answer our call. Another wait, and the shout was renewed with like results. To make the best of the delay, for time was wearing away and we were anxious to turn homewards, we assumed restful postures on boulder, sward, or fence, and entertained each other with the recital of our individual adventures.

On a sudden, a shout, faint in the distance, went up, "Rocks and Caves!" Every eye turned to the spot whence the sound came, and we caught sight of the Doctor, standing just where we had emerged some time before, in unconventional ecclesiastical attire, waving his arms wildly and shouting again and again, "Rocks and Caves!"

We, at first, exchanged incredulous glances, and had some mis-giving lest, in return for some innocent banter that afternoon on the habits of the American marmot, we should be as innocently inveigled into a purposeless walk back over already twice trodden and difficult ground. We wronged his candour. In common decency, we could not slight the earnest appeals of the young divine. So, pulling ourselves together for a renewed effort, we started to join him.

When within conversational distance we felt more reassured, and following blindly, in Indian file, over easier ground near a fence to the extreme right, we bravely penetrated the thicket, and in a few minutes came out into the open on the opposite side.

What a wonderful sight! We were speechless for an instant. We stood on an elevated ledge, with deep *crevasses* penetrating at acute angles the wall of rock. Underfoot they seemed to be bridged over by roots and accumulated mould, but yawned wide below. The Doctor had explored some from the lower level—how far he had made his way into their recesses I do not now recall. These were the "Caves."

But the wild, weird scene beyond! At our feet, below the ledge, countless huge rocks lay scattered, but with a certain order. I cannot describe the effect better than to suppose that some Titan had pushed over many walls, one falling on and overlapping the other, with the different courses of masonry sundered, but still juxtaposed, and in gigantic layers. The whole was bare of vegetation; no moss, nor fern, nor creeping vine to shroud their nakedness, but masses of stone lying whitened by time as bones in the desert. Across these rocks lay prone, in every direction, whole trunks of trees bleached by alternate rain and sunshine. These were the "Rocks," and they formed a waste of utter desolation, so tersely and fitly described by the uncanny name "The Devil's Glen."

To take in all these details, one by one, required time. We scanned the nearest features first; but as we looked further towards the outer verge of this valley of confusion, hundreds of feet away, another object, hitherto unheeded, met our gaze.

Stark from the field of shapeless ruins and on the steep slope of the hill, detached from all around, rose a rectangular mass of rock of monumental proportions, with a base a score or so of feet in breadth, and an elevation of thirty or forty. Firm on its foundations, it alone stood erect, where all else had yielded to the shock, and crumbled when very earth had rocked and quaked.

From our outlook, on a higher level, it was seen at a disadvantage. But as the slope, where it was securely stepped, sank away

rapidly, from the depth of the gorge far down on our left it must have towered up in, seemingly, far nobler proportions.

In general appearance, it resembled nothing so much as a ruined keep. Its outlines softened by decay, the rifts in its masonry widened by winter frosts, rents here and there along its face from base to summit, all spoke plainly of the wear of centuries. To heighten the illusion, from the only face visible to us, portions of the rock had fallen away, leaving in outline the embrasure of a great mediæval fire-place, if not of a dismantled portal. The Rock was deftly pointed off in courses by Nature, and slightly battered inwards from foundation to crest, giving it all the appearance of the last remaining tower of a ruined castle.

Such was it to our eyes; but to the eye of the superstitious Huron, it was the Rock near which the shades of their deceased braves passed on their way from earth to the land of souls. It was on the face of that Rock that great deeds were recorded in the sign-language and war-paint of the tribe, their heroes extolled, or perchance a message from the living to the dead inscribed. It was, in fine, *ekarenniondi*, or the Standing Rock of the Petuns, "lying"—as the Huron pointed out to Brébeuf the Blue Hills—"lying towards the setting sun."

The exact position of Standing Rock is on the very western limits of what we judged to be lot 29. Taking up a position on the ledge in true alignment with the county road quite traceable to the eye for a long distance across the rising hills to the north, a mile or so away, we clearly perceived that the line dividing the two counties would pass at the very foot of the Rock to the west, leaving it wholly within Nottawasaga township, Simcoe county; while the Devil's Glen extends well into Grey, being situated, consequently, partly in both counties.

Due credit must be given to Reverend Edward Kerby, D.D., now ordained, for being the first of our party to set foot within the Glen. Had it not been for his tenacity of purpose it is certain that we should not have come upon the Standing Rock of the Petuns that day; while plans based on the promise of the morrow have been known eventually to fail, as meanwhile some unforeseen occurrence called for an indefinite postponement.

In conclusion, I wish to put on record a grateful acknowledgment of the kindness and urbanity of the Grand Trunk Railway officials, and to none so much as to Mr. Henry R. Charlton are we indebted for the general success of the expedition. He did everything in his power to render our task easy and agreeable.

Loyola College, Montreal, February, 1903.

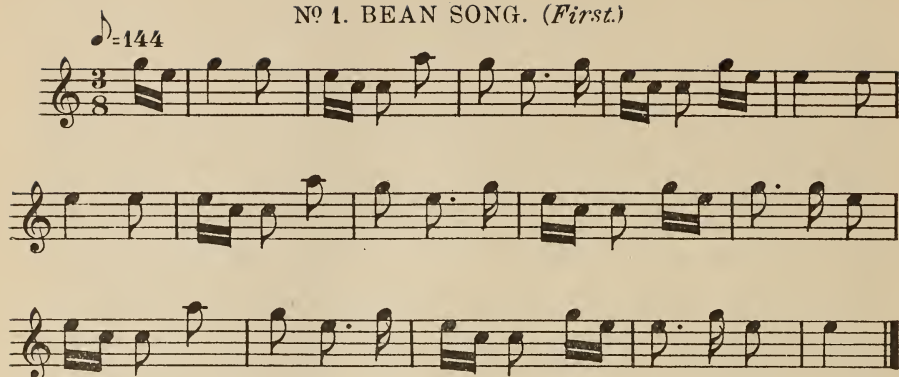
IROQUOIS FOLK SONGS.

A. T. Cringan, Mus. B.

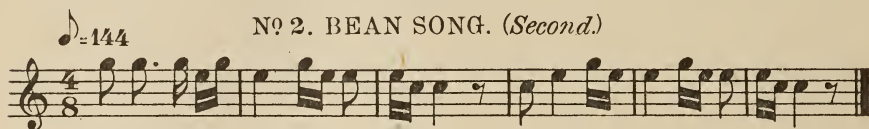
Much interest has been manifested in the series of investigations into the subject of the music of the Pagan Iroquois, of which a full account was given in the *Archæological Reports* for 1898-9. These resulted in sixty of the most representative melodies connected with the various ceremonials of the Senecas being secured and transcribed into musical notation. This number did not by any means exhaust the store of traditional songs possessed by the Senecas, who form a single tribe only of the "Six Nations." Each of the other tribes possesses an equally large store of songs containing special characteristics which distinguish them from those of other tribes. The various groups of songs appearing in this issue have been contributed as typical examples of the traditional songs of the Tutelo, Delaware and Onondaga Indians. Every effort has been made to ensure absolute correctness of musical notation. The songs were sung into the Graphophone by "Red Cloud," who is probably the oldest and most reliable authority on this subject to be found on the Indian reservations of Ontario. The graphophone records were then subjected to an exhaustive analysis, several hours being often spent on a single song, until the actual pitch and length of every note was positively defined. An investigation of the thirty-three melodies here given reveals several interesting peculiarities of tonality and rhythm, which aid materially in enabling the student to trace the gradual development of the musical concept from the most primitive elements.

Rhythm.—This is the most important element in the music of all primitive races; is, in fact, the only element employed in the music of races which rank lowest in the scale of intelligence. Among these the only musical instruments to be found are such as are usually classified as instruments of percussion. They are used solely as a means of marking time for the dance and are incapable of producing any determinate musical sound. This class includes rattles, clappers and drums of many kinds. The Iroquois possess one instrument belonging to the wood, wind class in the shape of a flute, but it does not play a prominent part in their musical development. Of rattles and drums they have several, but the voice is almost invariably used in conjunction with them during the ceremonies in which music forms an essential adjunct. The manner in which the Iroquois use their voices indicates a much higher degree of musical intelligence than that suggested above. The rhythmical structure of the Iroquois songs is strongly characteristic of the people themselves. Phrases of three or five measures in length are freely used, whereas composers of conventional music restrict themselves to phrases containing an even number of measures. The rhythmic faculty is highly developed in the Indian mind, and his melodies abound in subtle rhythmic combinations which would, in some instances, afford a severe test of the technical training of an average body of modern choristers. He prefers to express his musical ideas

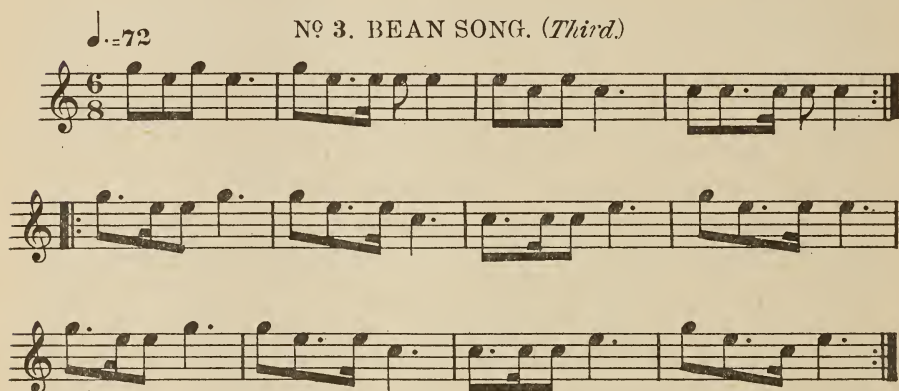
Nº 1. BEAN SONG. (*First.*)



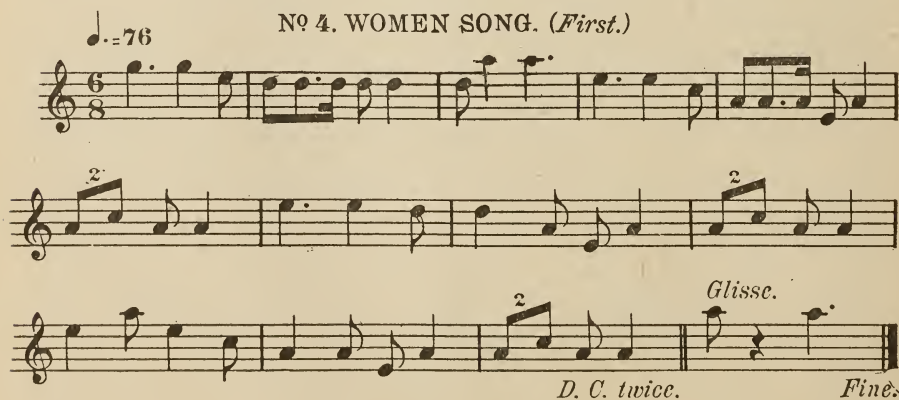
Nº 2. BEAN SONG. (*Second.*)



Nº 3. BEAN SONG. (*Third.*)



Nº 4. WOMEN SONG. (*First.*)



Nº 5. WOMEN'S SONG. (*Second.*)

$\text{♩} = 108$

repeat ad lib. *Glisse.* *Fine.*

Detailed description: This musical score is for a women's song in 2/4 time with a tempo of 108 beats per minute. It consists of three staves. The first staff begins with a treble clef, a key signature of one flat (Bb), and a 2/4 time signature. The melody is written in eighth and quarter notes. The second staff continues the melody. The third staff concludes with a glissando (Glisse.) and a fine ending. The instruction 'repeat ad lib.' is placed below the second staff.

Nº 6. WOMEN'S SONG. (*Third.*)

$\text{♩} = 144$

Glisse.
D C ad lib.

Detailed description: This musical score is for a women's song in 4/4 time with a tempo of 144 beats per minute. It consists of three staves. The first staff begins with a treble clef, a key signature of two sharps (F# and C#), and a 4/4 time signature. The melody is written in eighth and quarter notes. The second staff continues the melody. The third staff concludes with a glissando (Glisse.) and a double bar line. The instruction 'D C ad lib.' is placed below the third staff.

Nº 7. WOMEN'S SONG. (*Fourth.*)

$\text{♩} = 66$

repeat ad lib.

Detailed description: This musical score is for a women's song in 6/8 time with a tempo of 66 beats per minute. It consists of two staves. The first staff begins with a treble clef, a key signature of one flat (Bb), and a 6/8 time signature. The melody is written in eighth and quarter notes. The second staff continues the melody and concludes with a repeat ad lib. instruction.

Nº 8. TUTELO ADOPTION SONG. (*First.*)

$\text{♩} = 66$

repeat ad lib.

Detailed description: This musical score is for a tuteló adoption song in 2/4 time with a tempo of 66 beats per minute. It consists of two staves. The first staff begins with a treble clef, a key signature of one flat (Bb), and a 2/4 time signature. The melody is written in eighth and quarter notes. The second staff continues the melody and concludes with a repeat ad lib. instruction. A triplet of eighth notes is marked with a '3' above it in the first staff.

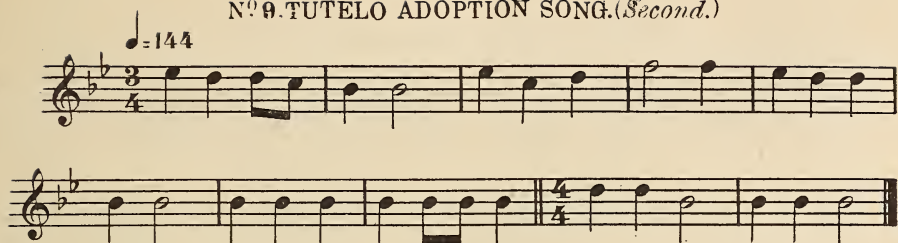
in his own peculiar way, which he doubtless considers vastly superior to that of the white man. It must in all fairness be conceded that the modern hymn tune, although set to verses in the native language, has a decidedly insipid effect when sung by an Indian in comparison with his own vigorous native melodies.

Tonality.—In a previous report the opinion was expressed that the Iroquois songs were based almost entirely on the pentatonic scale. This scale is practically the modern major scale with the fourth and seventh omitted. As the employment of these two tones necessitates the introduction of the interval of the semitone it is commonly surmised that primitive races have found this interval somewhat difficult to sing and have consequently avoided it. An examination of the melodies here published warrants the opinion that Iroquois song is based on something even simpler than the pentatonic scale. In a number of the melodies no other tones are used than the three, Do, Mi and Sol, which form the Tonic or fundamental chord of the scale. These would seem at first to have been combined with the simplest rhythmic elements, which would for a time satisfy the demands of the undeveloped musical intelligence. Examples of this elementary combination may be found in Nos. 2, 3, 5 and 6. The next stage in melodic development appears to have been the addition of La, the sixth of the scale. The mental effect of this tone, as was first demonstrated by the late Rev. John Curwen, is intensely sad and plaintive. This addition to the three tones of the Tonic chord, which embody the primary qualities of ruggedness and strength, marks the first introduction of the emotional element into the songs of the ancient Iroquois. This may be observed in Nos. 1, 14, 15, 22 and 23. The interval of the major second above the fifth of the scale having now become familiar to the ear, the next logical development would seem to have been the addition of the tone Re, which occurs at the same interval above the Tonic. It may here be observed that in none of the melodies do we find this tone without the sixth, La, being also present. This completes the tonality of the pentatonic scale of which examples are found in Nos. 4, 7, 10, 11, 12, 15, 25, 27, 29 and 31. Two tones are still required to complete the major scale, viz, Fa and Te, but, as these entail the addition of a new and comparatively difficult interval their introduction is made with caution. The first to be admitted has evidently been Fa, as it occurs without Te, but, in the major mode, the latter is not found without the former. This may be observed by a comparison of Nos. 8, 9, 13, 17, 19, 26 and 28 with Nos. 18, 30 and 31.

“Bean Songs.”

The first group consists of three songs used in connection with the Bean, or Peach stone, games described by Mr. Boyle in pp. 126-8 of the Archaeological Report for 1898. In the first we have a melody exceedingly simple in construction. It consists of a phrase of four measures, which is repeated with slight variations, *ad libitum*. With the single exception of the sixth of the scale, which appears as the final note of the third measure,

Nº 9. TUTELO ADOPTION SONG. (Second.)



Nº 10. TUTELO ADOPTION SONG. (Third.)



Nº 11. TUTELO BURIAL SONG. (First.)



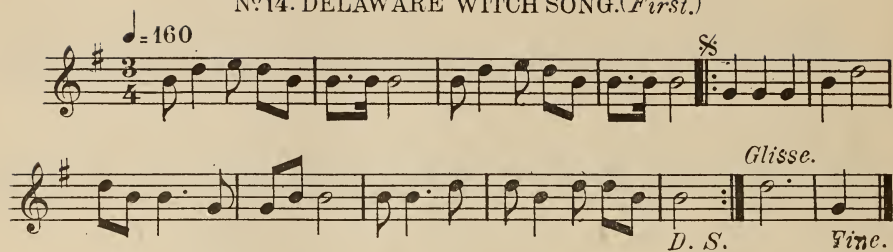
Nº 12. TUTELO BURIAL SONG. (Second.)



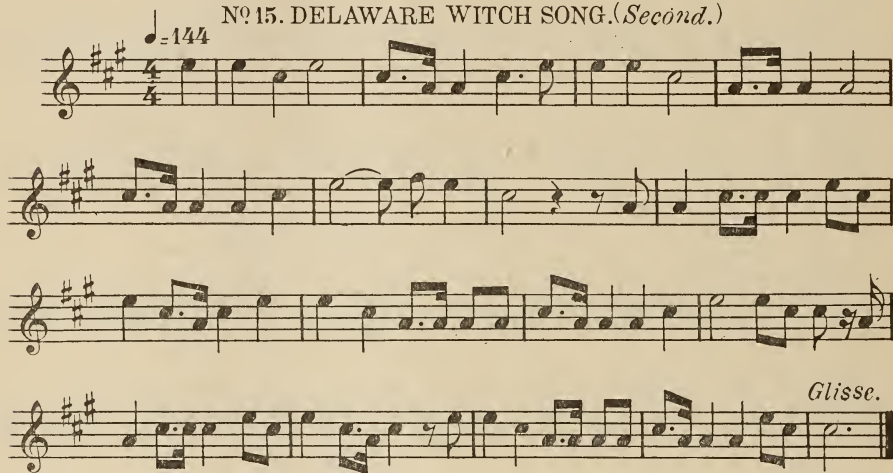
Nº 13. TUTELO BURIAL SONG. (Third.)



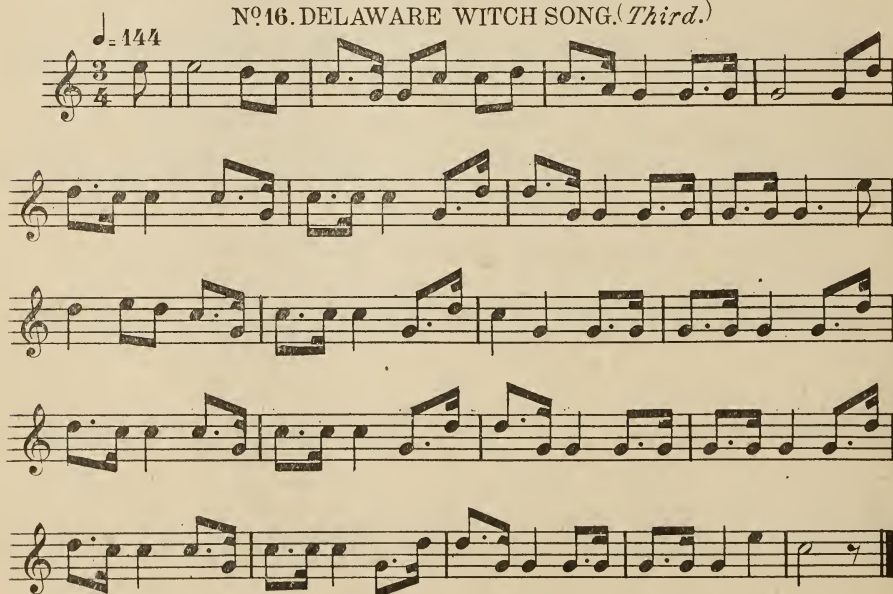
Nº 14. DELAWARE WITCH SONG. (*First.*)



Nº 15. DELAWARE WITCH SONG. (*Second.*)



Nº 16. DELAWARE WITCH SONG. (*Third.*)



the melody is confined to the three tones of the tonic chord, viz., the first, third and fifth of the scale. In the second and third songs of this group the melody consists entirely of these three tones. Variety is secured by the introduction of slight rhythmical alterations, which add materially to the interest and prevent the monotonous effect which would otherwise result from the repetition of the tones of a single chord.

Women's Songs.

The first song of this group presents several features of interest in tonality and rhythm. It is based on the ancient form of the minor scale, which lacks the characteristic "leading note" of the modern minor scale. The absence of the second and sixth reduces the number of notes to five and avoids the interval of the semitone, which seems to find little favor among primitive races. The first measure of the second line presents an example of two notes of equal length in the beat where three are naturally expected. This effect is repeated at the end of each phrase of three measures. The final measure contains the characteristic double "whoop," which is the favorite method employed by the Indian to emphasize the termination of his song.

The second song of this group is very simple in its construction. It consists of the notes of the fundamental chord of B flat major in phrases of sharply defined rhythm, which are reiterated as often as may be considered desirable and then concluded with a single whoop.

In the third song we have a striking example of mixed rhythm. The opening phrase consists of three measures of quadruple time commencing on the high A. These are followed by nine measures of triple time, which completes the first half of the melody. The second half is a repetition of the first with the exception of the variation introduced in the second measure of the last line. Although confined to the tones of the fundamental chord, this melody is decidedly animated and rousing in effect, on account of the energetic and varied character of the rhythm.

A bright and pleasing melody forms the fourth number of the group. In rhythm it is quite modern and conventional, but the favorite tonality of the pentatonic scale is rigidly maintained.

Tutelo Adoption Songs.

The songs comprising this group are, as their title would indicate, those which are associated with the ceremonies attendant on the admission into the Tutelo tribe of a new member by adoption. The first song (No. 8) consists of a simple musical sentence of seven measures only, which is repeated as often as may be required. It contains an example of triple time introduced where the normal measure is duple. This mixed rhythm is also noticeable in the succeeding melody (No. 9), in which two measures of quadruple time are added to a normal sentence of eight measures in triple time. Another noticeable peculiarity is found in the commencement on the fourth of the scale.

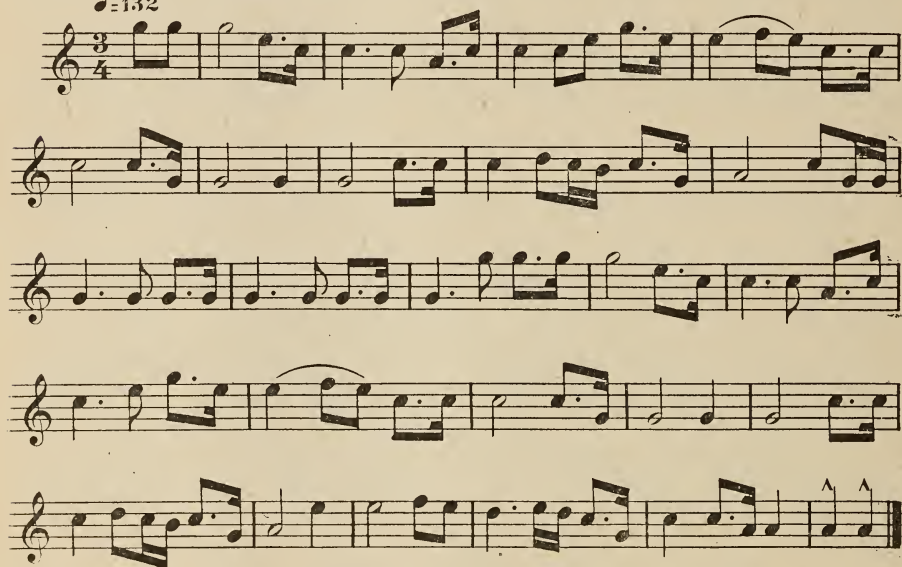
Nº 17. NAKED DANCE SONG. (First.)

♩ = 112



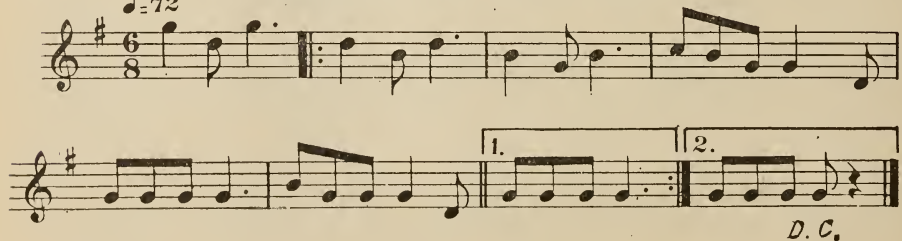
Nº 18. NAKED DANCE SONG. (Second.)

♩ = 132



Nº 19. NAKED DANCE SONG. (Third.)

♩ = 72



Tutelo Burial Songs.

In the first song of this group (No. 11) the first two measures form an introduction such as seems to be characteristic of Indian ceremonial songs. The obvious intention of the singer seems to be to command the attention of his audience by the utterance of one or more high notes with the full force of his voice. Although the following song (No. 12) is given as a separate number, it seems to be closely associated with No. 11 in actual use. The same phrase of three measures of two-four time appears in both. When this has been sung in the second melody, a return is made to the third measure of the previous number, which is repeated to the end. The third number of the group is among the most musical examples of the entire collection. The construction of the rhythm is quite regular and might readily be accepted as part of a modern waltz. In effect it contrasts strongly with the previous numbers of this group. The tonality is distinctly that of the major mode and the pentatonic scale is abandoned in so far as to admit of the introduction of the fourth of the scale with the consequent interval of a semitone between A and B flat.

Delaware Witch Songs.

The most noticeable peculiarity observable in No. 14 is the syncopated rhythm which marks the opening measure and is reproduced frequently throughout the melody. The effect is decidedly inspiring when sung with the intensity of energy with which the Indian invariably seeks to express the sentiment embodied in his native songs. In No. 15 we have another example of clear-cut, vigorous rhythm resulting in a melody of much brighter character than would naturally be expected from the meagre tonal material of which it is composed. With the exception of the F sharp in the seventh measure the melody is confined to the three tones of the tonic chord. In the final number of this group may be observed one of the most distinctive features characteristic of the music of all primitive races. A simple musical figure is announced then reiterated *ad libitum*. The main source of pleasurable interest lies in the alteration, however slight, of one or more notes in each successive repetition. Of logical musical development, such as is to be found in conventional musical composition, there is none. The Indian is thoroughly satisfied with his restricted means of embellishment, and it is questionable whether the more comprehensive devices of the paleface musician would afford him the slightest satisfaction.

Naked Dance Songs.

The first of this group (No. 17) presents a fine example of the characteristic noted in the previous melody. It is evenly divided into four-bar phrases, but these are not repeated in regular order. Three distinct phrases are used throughout the course of the melody, but the order in which they are employed seems to be a matter of no consequence whatever. Any one may be followed by any other one and the variety secured by this primitive device

Nº 20. MEDICINE SONG. (*First.*)

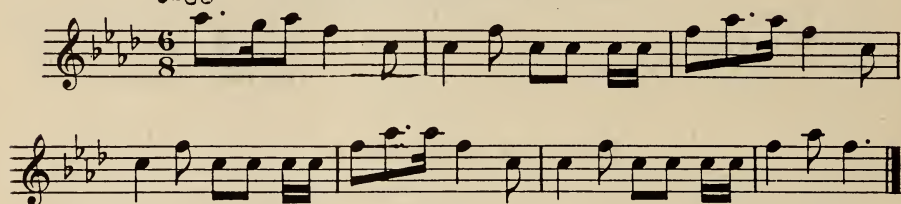
♩=168



D. C. ad lib.

♩=88

Nº 21. MEDICINE SONG. (*Second.*)



♩=176

Nº 22. MEDICINE SONG. (*Third.*)



♩=126

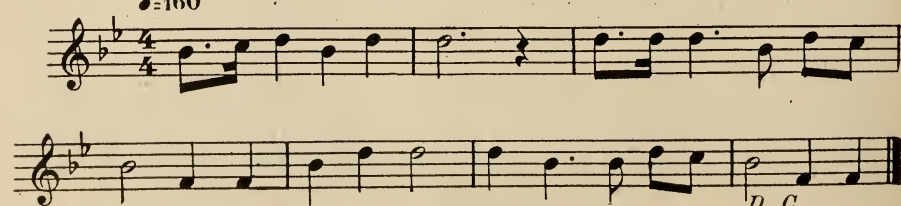
Nº 23. BEAR DANCE SONG.



D. C.

♩=160

Nº 24. TUTELO MORNING SONG.



D. C.

seems to afford ample gratification to the singer. The second member of this group (No. 18) is, in one respect, the most noteworthy met with thus far. It commences in C major and ends in its relative A minor. For the first time every note of the scale is employed. The seventh is, however, very sparingly used, as it occurs as a sixteenth note only in the fourth measure of the second line, and once again, when this measure is repeated. Reference has already been made to the employment of vociferous prelude as a means of commanding attention to the song which follows. This is strikingly evident in No. 19, as the first measure does not form an integral part of the melody, nor does it re-appear in the repetition. The melody proper consists of three-bar phrases throughout and is otherwise quite regular in construction.

Medicine Songs.

In the groups of songs associated with the dance rhythm necessarily furnishes the most essential element. In the group now under discussion the rhythmic element is secondary to the emotional. The time-values accorded to the notes in the musical notation give a merely approximate idea of the effect of the songs. All three are beautiful examples of musical recitative in which music is used simply as an effective adjunct to render declamation more emphatic. There is an element at once plaintive, commanding and dignified in all three. When sung by the "Medicine Man" during his efforts to drive off the evil spirit from the sick their effect must be intensely weird and imposing. No. 20 presents the first example of a minor key with its leading-note and No. 21 of a minor key with its supertonic.

Bear Dance Song.

This presents two distinctive features already noticed, viz., the loud-voiced prelude and the continued reiteration of the notes of the Tonic chord. It may be mentioned in passing that there is not the slightest affinity between this and the "Bear Dance Song" of the Senecas, published in the *Archæological Report* for 1898.

Tutelo Morning Song.

This consists of a simple phrase, oft repeated, in which four tones only of the scale of B flat major are employed.

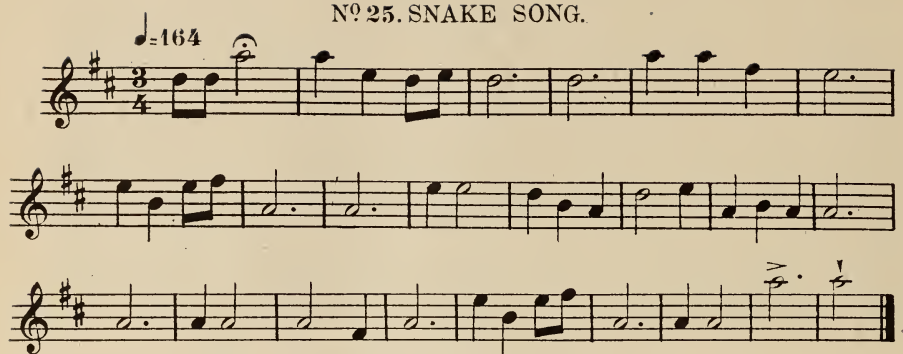
Snake Song.

In this the 'pentatonic' element is again clearly in evidence as is also the loud-voiced prelude already described. There is no lack of rhythmic verve and abandon essential to the accompaniment of the vigorous dance with which it is associated.

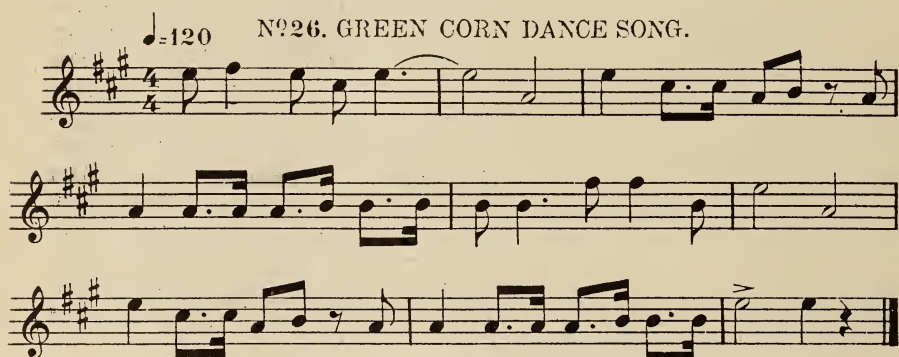
Green Corn Dance.

"At the new moon of the green corn ye shall give a thanksgiving dance" Thus spake the Great Spirit, and his command is faithfully observed by the Pagan Iroquois to this day. Each

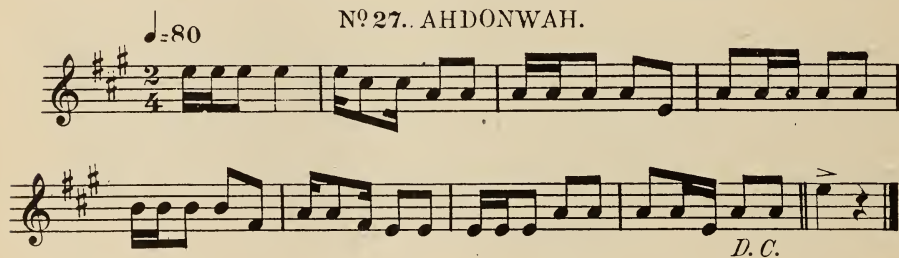
Nº 25. SNAKE SONG.



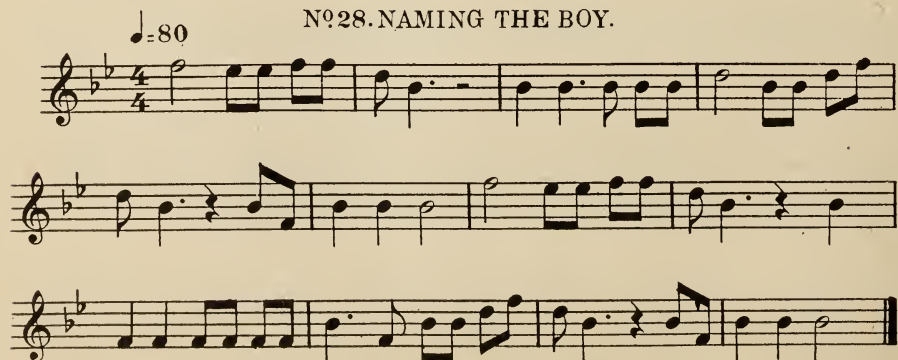
Nº 26. GREEN CORN DANCE SONG.



Nº 27. AHDONWAH.

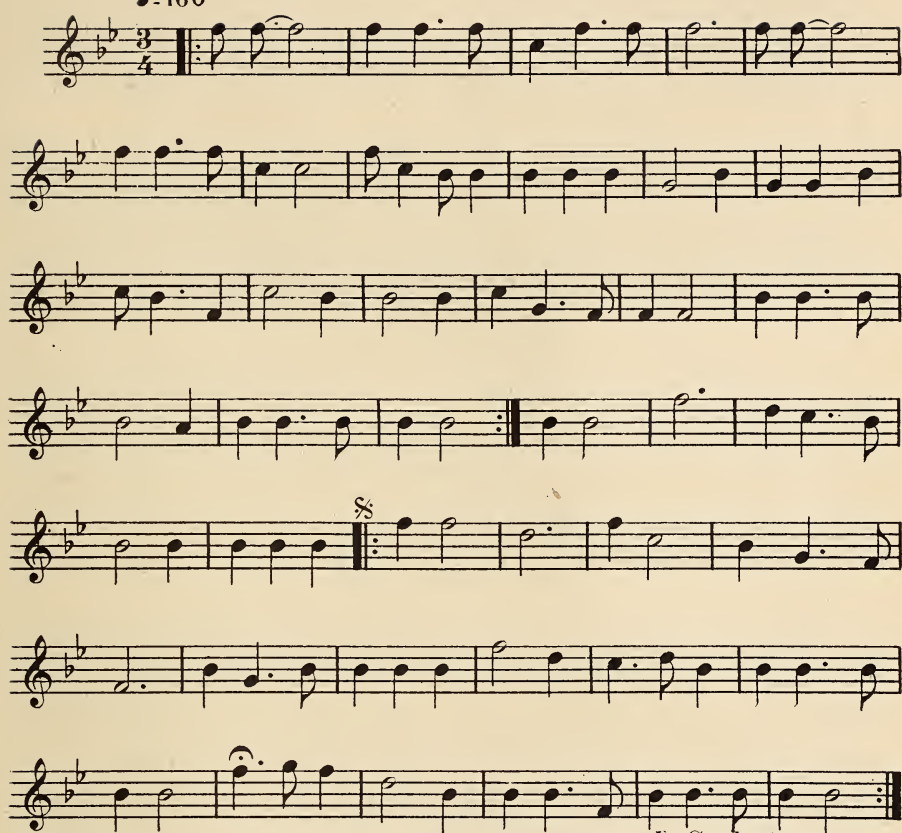


Nº 28. NAMING THE BOY.



№29. WAR DANCE. (First.)

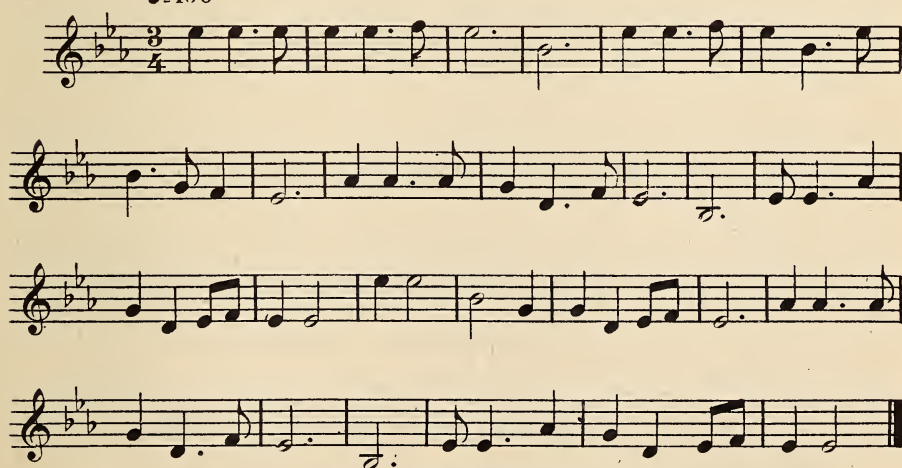
♩ = 160



D. S. al fine.

№30. WAR DANCE. (Second.)

♩ = 160



This is followed by the preceeding melody.

nation seems to have its own distinctive songs for this important festival, as there is nothing in common between this Onondaga melody and that of the same name belonging to the Senecas. This is a vigorous melody with syncopated rhythm and a liberal employment of short dotted notes, which materially enhance the animation with which it is sung.

Adonwah.

The title literally means "Song of joy," and is applied to a numerous class of songs, in which the singer does not mean anything in particular, but merely gives expression to his gladness in the same manner as do the song birds of the forest.

Naming the Boy.

In speaking of the element of "joyousness" in Indian songs Mr. Boyle, in a former report, has said: "I have not heard any that might be so characterized." In this song we have something which, if not joyousness, resembles it very closely. It is an evident expression of elation consequent on the naming of the latest infant addition to the army of braves.

War Dance Songs.

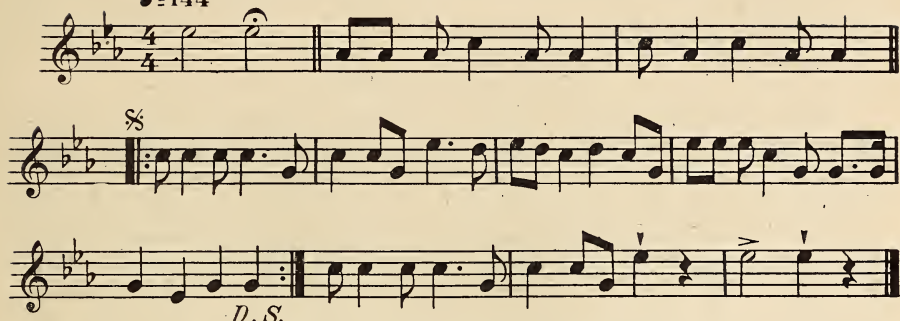
The two songs comprising this group are in reality one, since No. 29 was sung by "Red Cloud" as the latter part of No. 30, although he had previously given it as a separate song. Both possess in a marked degree the most striking characteristics found in the more serious tribal songs already discussed. The loud prelude is now extended to eight measures in length, as if to ensure the close attention of all now that a matter of life and death is under discussion. This is followed by a melody which fairly glows with intensity of feeling well calculated to arouse the thirst for blood in the heart of every brave. The tempo increases in rapidity until the notes become almost lost in the wild frenzy of delirium. When this has reached a climax a new subject is introduced in the second melody, which appears in the key of the sub-dominant, at all times expressive of an increased degree of solemnity. Even this is insufficient to express the required depth of meaning. For the first time we have the sharp, sensitive seventh of the scale in juxtaposition with the sombre fourth. The resultant interval of the diminished fifth, however familiar to civilized ears, is here intensely dramatic in effect owing to the extreme rarity with which it is employed. This mood is quickly over, a decision is arrived at, and again the exciting strains of the first song are repeated with increased vigor, which cannot fail to arouse even the most indifferent of the braves, or strike terror into the hearts of their foes.

Delaware Harvest Songs.

Here we have two melodies overflowing with delight consequent on the successful close of the harvest. This is expressed

№31. DELAWARE HARVEST SONG. (*First.*)

♩ = 144



D. S.

№32. DELAWARE HARVEST SONG. (*Second.*)

♩ = 200



Glisse.

№33. BUFFALO DANCE SONG.

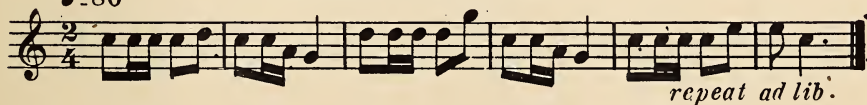
♩ = 80



D. S.

№34. SCALPING SONG.

♩ = 80



repeat ad lib.

in a manner at once simple and unaffected. Syncopated rhythm abounds, any interval is employed, the semitone being introduced with a freedom bordering on recklessness, and each melody is concluded with a long drawn out whoop.

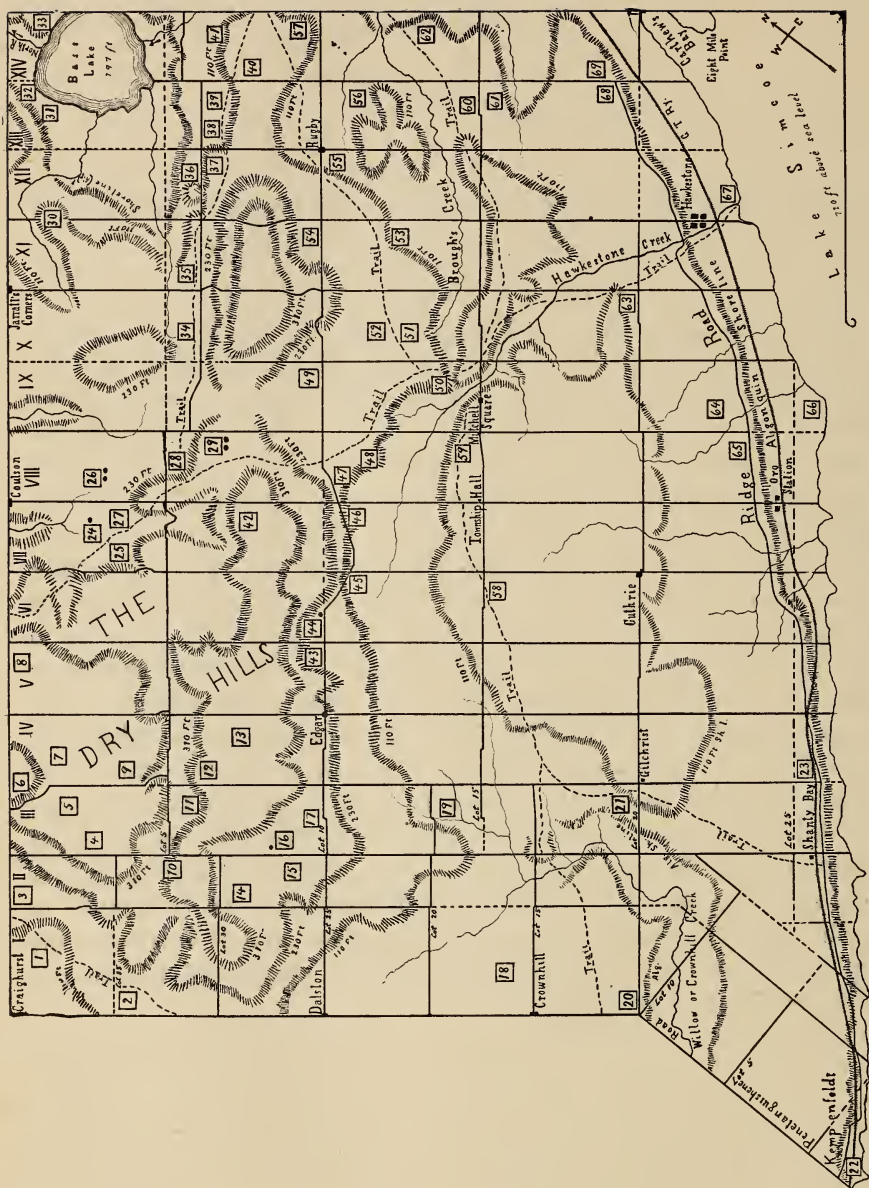
Buffalo Dance Song

This melody does not possess a single marked characteristic of Indian song until the double bar is reached in the third line. With all due respect to "Red Cloud" one cannot resist the conclusion that he has unconsciously reproduced a strain of some camp meeting hymn assimilated while fraternizing among his kin who have renounced Paganism. The second part is identical, note for note, with the "Scalping Song," as contributed by "Kanis-handon" to the report of 1898. This discrepancy provides an additional, though unconscious, proof of the wisdom of the Hon. Minister of Education in empowering Mr. Boyle to secure all available examples of Indian tribal melodies while yet they may be had.

NOTES ON SITES OF HURON VILLAGES IN THE TOWNSHIP OF ORO, SIMCOE COUNTY, ONTARIO.

By Andrew F. Hunter, M.A.

The township report submitted herewith is the fourth in a series intended to cover the district once occupied by the Hurons, the townships of Tiny, Tay and Medonte having successively formed the subjects of preceding reports. When collected they form a connected story of some portion of the remains of this remarkable nation of aborigines, unique in mortuary practices, agricultural methods, myths and other characteristics. There is every reason to believe that the other townships in the Province possess an interest for the archaeologist equal to these townships of the Hurons. There are more than 500 organized townships in Ontario, and each promises work enough for the entire time of a skilled archaeologist without his going beyond its bounds. The large amount of early historical literature, however (including the narratives of Champlain, Sagard, Bressani and the Jesuit Relations), which is devoted to these townships of the Hurons, and which is to be found about no others in the Province, makes them especially interesting. One of the chief objects of making a systematic examination of them, archaeologically, is to throw as much light as possible upon this literature, and it is important that this thorough examination should be completed before the facts are beyond recovery.



MAP OF THE TOWNSHIP OF ORO (SIMCOE COUNTY).

Explanations.—The small squares indicate the position of the different village sites, and the enclosed number in each refers, etc., etc.

INTRODUCTION.

Physical Features.

A narrow, swampy basin crosses the centre of Oro from east to west, and divides the township into two nearly equal parts. The drainage from this basin flows in three directions. That of the westerly part goes by the Willow or Crownhill Creek to the Nottawasaga River; the Hawkestone Creek drains the centre into Lake Simcoe, and Brough's Creek takes the drainage of the easterly part to Shingle Bay, near the Narrows of Lakes Simcoe and Couchiching.

In the south half of the township the land is gently undulating and does not reach a height of more than 250 feet above Lake Simcoe, which is 720 feet above sea level. The ground in this half was wet in many places when forested, and except in its easterly parts it contains but few Huron village-sites. It was too swampy for them.

The "Dry Hills" of Oro.

The north half of the township is very hilly. The highest altitude in the country of the Hurons is attained on these hills. In a few places here the land attains a height of more than 600 feet above Lake Simcoe, or nearly 1,400 feet above sea level. What are known as the "dry lots" or "dry hills" of Oro occupy the north-westerly quarter of the township. They are called "dry" because the settlers among them have to use cistern water all the year round. These people have often made attempts to get water by excavating deep wells, but mostly without success. Standing out by itself, an island as it were, this tract of high ground gives to anyone an exceptionally good point of view on a clear day. From the crests of the hills one can see a great panorama; landscapes in the adjoining counties present themselves in every direction. And in the clearest weather, by looking in a north-westerly direction the Indian peninsula beyond Owen Sound may be made out; to the south, across Lake Simcoe, the Oak Ridges of York County are distinctly visible; to the northeast lies the granitic and Laurentian area of Muskoka—a blue stretch of abraded and uniform country looking like a distant sea.

There are two or three conspicuous rifts or valleys across these hills at high levels. The highest one of them is traversed by a very high abandoned shoreline, which is about 410 feet above the "Algonquin" (this high shoreline is not traced on my map), and which runs from the deep glen at the Ellsmere site (No. 6). These valleys are dry and secluded, and evidently had their due effect upon the occupation of the intervening hills by the Hurons, for in this part of Oro the valleys and ridges run in a northwesterly direction, and the village sites are in lines which run in the same direction.

This hilly tract does not contain any springs or streams; the other parts of the township are all better supplied with streams than these dry hills. The drainage from their northern edge goes toward Georgian Bay. In other places, abandoned shorelines are

water-bearing, i.e., springs issue along them; but in these hills the high shorelines become less water-bearing the higher one rises up their flanks. And near their summits they furnish no springs, but are completely dry. These summits were the earliest "upheavals," and they have been longest exposed as dry land. They are of equal age with the highest parts of the Oak Ridges in York County.

The soil is usually a compact sand of a fertile, though dry, kind. Beds of gravel occur here and there. All the surface deposits were evidently laid down under water—the sport of currents. On the sandy loam of these hills, the woods were quite open beneath, thus furnishing more convenient passage for the aborigines in every direction than the lower swampy ground.

There is some wild land in the north half of the township, which is known as "Upper Oro," and the primeval woods cover the land in many places. But what land has been cleared has yielded considerable evidence of Huron occupation. The timber on these steep, wooded hills includes red oak, sugar maple, beech, grey elm and white pine. These are the prevailing kinds—a flora quite different from that of the swamps.

The preference of the Hurons for such high ground has been noted in my previous reports on Tay and Medonte. Hurons probably selected sandy, upland soil for corn-growing, the cornpatch being always a feature of the Huron village. According to the view expressed to me by a Negro settler in these hills, the Hurons planted their corn on the high hills because "the nearer the sun they could get, the better the corn would grow." Perhaps this philosophy of the sun and his effect upon their crops, amusing though it may be to us, has a morsel of truth. What did the Huron know about astronomical distances? To him the sun was a hot ball, a mile or two away, perhaps less; and the advantage gained by 500 feet of altitude would be, in his humble opinion, a very great advantage indeed. The business relations of the sun with the crops of the aborigines have a considerable part in their mythology.

Features of the Modern Topography.

In the Old Survey, i.e., Concessions One and Two, the lots are numbered from south to north; but in the New Survey they are numbered from the northern boundary of the township down to Lake Simcoe. In other respects, Oro is surveyed like Tay and Medonte, except that a gore, caused by a bend in the Penetanguishene Road or western boundary, is inserted at the lake between Concessions Two and Three. This gore is divided into Ranges One and Two.

The usage of the settlers in Oro in the naming of the Concession lines is not uniform—some (a majority) counting the line after, others counting it before, the concession itself. The side-roads are called "crossroads"; in earlier years the sideroads at lots ten and fifteen and the Ridge Road, were known respectively as the Upper, Middle and Lower Crossroads, and they are still sometimes designated in this way.

The Raised Shorelines and Their Archaeological Significance.

Here, as in the other townships, one of the most prominent physical features is the old shoreline markings. Their great height above present water levels suggests what a vast period of time has elapsed since the waters washed the highest parts of the hills. But there are evidences everywhere that they have done so at some remote time. The plan of the accompanying map is identical with that of the other township maps that I have lately issued. Four of the most important shorelines are marked, so as to give the altitudes of the different parts of the township. The "Algonquin" shoreline is taken as the base-line, and the other three shorelines are designated by their altitude above this one, viz., 110 feet, 230 feet, 310 feet, as it is the most important. The strong shoreline at 310 feet above the "Algonquin" is the highest one I have marked on the map, although there



Example of an Ice-Reef. (See Report for 1896, p. 70.)

are markings still higher than this. Some of these raised shorelines made numerous small islands, all of which it is impossible to mark down on the map, but the main portions of them are shown. The 110-foot shoreline saw climatical conditions of a kind widely different from what we now have. At this shoreline and also those at 70 feet and 40 feet (the two last not being mapped), ice furrows or ice-reefs become so numerous that a sub-arctic climate is distinctly shown. In the valley of the Willow or Crownhill Creek, and onward throughout the Central Basin of the township, referred to in the opening sentence of this introduction, there are many of these ice furrows of a serpent-like

form. Their most remarkable feature is that they occur at uniform altitudes everywhere—always in the vicinity of the three shorelines just mentioned, and more especially in what were sheltered bays at the time of their formation. The material of which they are composed is usually modified boulder clay. A few years ago the writer took part in the examination of similar clay ridges or reefs in Innisfil, which township is separated from Oro by Kempenfeldt Bay. The object of the investigation was to ascertain whether they were artificial. In structure, which in their case was mainly a sedimentary clay, the material was much mixed and thus they resembled artificial work. But they lacked a line of humus along the bottom. The conclusion then reached was that they had a natural origin, but that on account of the frequency of Indian remains near them some attention had been given to them by the aborigines, who had also been struck by the curious phenomena. (See Archaeological Report for 1896.) They were evidently caused by thick ice shoving up reefs on the beach. Numerically, although they are to be found in all the protected bays of the zone of altitude from 40 feet up to 110 feet above the "Algonquin," still they reach a maximum at the 70-foot shoreline. The conjectural attention of the aborigines to these ice-reefs, which can at this day be little more than a matter of speculation, is not the only phase of the subject that needs to be mentioned. One often hears people describe them as "Indian mounds" or "fortifications," or as "Indian embankments" and even as "Indian race-courses." This is, of course, an error. Similar reefs or ridges also occur in other localities, but always at an altitude corresponding with that above mentioned. Some in Michigan have been described by F. B. Taylor in an article on the surface geology of that State. (See Bull. Geol. Soc. Am., Vol. 8, 1896, p. 44.) In Michigan as well as here, some people claim to recognize in these remarkable ridges the work of prehistoric man. And on account of the wide range of this popular fallacy it is worth our while not to dismiss them without full consideration. In Ohio and other adjoining States archaeologists are becoming more careful than they were a few years ago in distinguishing the work of ice on former lake shores from actual earthworks and mounds.

The Village Sites.

These are chiefly found in the north half or Upper Oro. They are not so distinctly divisible into natural groups as we found in Medonte. There is, however, a difference in kind between east and west villages in Upper Oro. The line of demarcation that divides the northwesterly group of villages from the northeasterly is a physical boundary—a rift across the hills. In the one case (the west) they have no iron relics except in two instances on the Neutral trail; in the other case (the east) they have a moderate supply of European relics, with swords in three or four instances at the southeast. Again, the west are seldom at shorelines that are now water-bearing, but the east are usually at such shorelines and as a rule the latter villages were larger and more permanent.

The west group were probably early villages of those "nations" found in the townships farther north during the historic period.

Some of the smaller sites in the Dry Hills might have been those of temporary villages established for convenience in corn-planting or corn-gathering at particular seasons, or for stopping-places on the trails, or as winter quarters. They are often distant from any water-supply, and they do not suggest permanence, unless the springs were more numerous in Huron days than now, which is quite doubtful.

Throughout the township the village-sites exhibit marks of having had a sedentary and established Huron population. The Hurons, especially those in the northwest group, like those in the previously examined townships, show considerable development in agriculture (corn-growing, etc.); they had evidently made no little advance in this art.

Nearly everywhere ash beds with pieces of pottery and other fragmentary articles, are all that remain to mark the situations and extent of many populous and permanent villages. In some places the sandy soil might have absorbed even the ashes and left few traces of occupation.

Around Bass Lake, a nice sheet of water in the northeast corner, the sites are very numerous. This might have been expected from our results at similar small inland lakes in the townships formerly examined. From the numbers of Hurons camped around this lake, the Jesuits would doubtless become quite familiar with it. And it is therefore probable that it is the lake marked on Ducreux's map, which has been confused with Lake Couchiching.

In some cases the encampment covers a few acres of elevated ground surrounded according to the common plan by steep acclivities or sometimes by ravines on about three sides. And in addition to the natural defences of such a position, we may readily infer that the whole village was surrounded by a wooden palisade. Villages which thus appear to have had a stockade are Nos. 2, 19, 26, 38, 48, 52, 57 and 62. From the apparent absence of palisading in the northwest group of villages it seems probable that they belonged to the period before the wars of the Hurons with the Iroquois.

My list of 69 sites is the result of a promiscuous survey, carried on as opportunity permitted for some years past, and perhaps the list does not include one-half of what sites will ultimately be recorded for this township. But what I give are representative sites, and are numerous enough to show the extent of Huron occupation, the geographical distribution of the sites and the natural laws that governed this distribution, and to establish the courses of the chief trails. The important sites, which are, of course, the ones that are best known to the settlers and which will be the first to reach the ear of an investigator, will probably be found in this list. It may be regarded as a collection of first-hand information, reported and revised by the writer, and will, at least, make an opening in the field for the correct elaboration of the whole story of the Hurons. The descriptions contain the

names of as many successive occupants of a farm as possible, since when the name of the finder of a relic is known, or the name of the man on whose farm it was found, it becomes easier to assign it to a definite locality, and there is no work so necessary as the definite location of the multitudes of relics that are exhibited here and there without the slightest clue to the place where each was found.

In the historic period of the Hurons—the period to which our attention is chiefly directed—the inhabitants were too numerous to get subsistence only by hunting and fishing. And an extensive cultivation of corn, etc., had to be adopted, although the Hurons were an agricultural people from the very earliest period. Carbonized corn grains are often found on the sites, and patches of corn-hills occur in the vicinity of many centres of population.

In addition to one's own observations, farmers and their workmen are very useful in giving testimony of features observed by them; in fact, their evidence is indispensable in archaeological work, which in its nature differs from geology and many other sciences depending upon direct observation. But on the other hand, an archaeologist is at the mercy of their fancies and exaggerations, seldom consciously made. I have kept this before me, and have given no statements that are not well attested. But I have seldom given my authorities, as this would have increased the size of the report with information of minor importance.

The appearance of European metal implements on a site is a feature of great assistance in clearing up the question of the period to which the village belonged. If we find this character common to some sites and not to others, we are safe in concluding that the former were inhabited after the arrival of the French traders. In this, as in other matters, negative evidence has, of course, little value, since the reported absence of such relics from a site can only be taken provisionally. And, besides, there is the chance (always a slim one) of a European relic being lost on top of an earlier and pre-French site. But in the aggregate, these chances lose their effect, and from the total figures we learn a useful lesson of the actual state of occupation. Scarcely any iron relics have been found in Oro west of the seventh concession. On the other hand, nearly all the sites along the Lake Simcoe front have yielded such relics; some of these were evidently recent, i.e., they belonged to times subsequent to the Huron days, and the remainder were in all probability used as landing-places by the Hurons and early white traders. In Medonte we found that 73 per cent. of the village-sites yielded French relics, but in Oro this falls to 32 per cent., there being 22 village-sites out of 69 where such relics have been reported. And these 22 have yielded them in minor quantities in comparison with sites in the northern townships; in several cases, too, included in the 22, the sites are evidently post-Huron; by making allowance for this, the difference between Oro sites and Tay sites, for example, would become still wider. These figures are derived from promiscuous inquiry, and on further investigation may be slightly changed; but the difference shown in the aggregate is too great to be changed much, or be proved to be an accidental or chance result. Thus in our

southward journey through the townships of the Hurons, it is in Oro that we first actually reach the prehistoric sites. In a separate article on "French relics" I have shown, from a comparison of the frequency of these relics in the various townships, that the Hurons had lived in the southerly townships before the French came, and had been driven into the northerly townships at the dawn of the French or historic period. This conclusion, derived from purely archaeological considerations, agrees with the independent evidence furnished by the chronicles of the Jesuits, who narrate the effects of the war between Iroquois and Hurons in driving the latter farther north.

Burials.

The most easterly sites in Oro, such as Coleman's (No. 41), or Morrison's (No. 57), have hitherto yielded no bonepits. Some burial pits have been found as far east as Orillia town, but they are not so common at the east side of the county as in the north and west. This absence of communal burial pits in the eastern sites resembles the results obtained by Geo. E. Laidlaw in the Balsam Lake district, farther east, where he found that the burials are almost entirely in single graves. Single burials occur at Nos. 1, 3, 6, 22, 30, 31, 36, 38, 41, 47, 53, 57, and 65. There are seven bonepits, viz., at Nos. 16, 24, 26 (2), 29 (2), and 44.

Cahiague and St. Jean Baptiste.

Like other historic Huron villages, Cahiague is doubtless represented by a cluster of sites, rather than by a single one, for herein lies a feature of Huron life, and indeed of aboriginal life generally, which has to be kept in mind. It had doubtless been removed to a different place, probably three or four times in succession, from Champlain's visit in 1615 till 1647, when its successor was abandoned. But the inhabitants were practically the same people, or their descendants, all the time. The passage in the Relation for 1640 (chap. 9), almost identifies the Cahiague of Champlain with the later St. Jean Baptiste of the Jesuit missionaries. Lalemant there informs us that the Arendarronons had a distinct and favorable recollection of the great traveller. The identification is not quite complete, although most writers identify the two. The village of the earliest, or Champlain, period, was, in my opinion, the Buchanan site (No. 38), where extensive remains have been found near a small lake (Bass Lake), and which otherwise fulfils the conditions. In the Burrows' Re-issue of the Jesuit Relations, vol. 20, p. 305, I identified Bass Lake with the small lake on Ducreux's map, which may have been confused with Lake Couchiching. The small lake mentioned in Champlain's narrative as lying near Cahiague also becomes identical with Bass Lake. The late Joseph Wallace, of Orillia, whom I regarded as the best authority on this question, endorsed my view of the identity of the lakes.

As with other Huron towns mentioned in the early writers, the vaguest surmises have been made as to the position of Cahiague.

Most writers have assigned it to the shore of Lake Couchiching, several miles northeast of the town of Orillia. A little more attention to distances, and a better acquaintance with the nature of the country along the shores of Lake Couchiching, would perhaps help to eradicate their error.

Rev. Father Martin (*Life of Jogues, Appendix A*) identifies Cahiague with the Contarea mentioned by Brebeuf as lying on the frontier of the Hurons. Cahiague contained, according to Champlain, 260 cabins, which Parkman (*Pioneers of France*) thinks were small, because if they had been the ordinary Huron cabin the population would have been enormous. They were probably single lodges, with a family in each lodge.

In the site on the Buchanan homestead (No. 38) we find such evidences of size and character as Champlain's description of Cahiague would lead us to look for. Yet the moderate quantity of European relics found at this site, and others south of Bass Lake, leads me to think that it was abandoned at an early part of the historic period. North of Bass Lake, European relics are more abundant,—viz., in Medonte and North Orillia. This goes to show that the north was occupied down to a later date than southward of Bass Lake. Ragueneau (*Huron Relation, 1648, chap. 4*) says the Arendarronons, who were the most exposed of the Huron "Nations," were so harassed by the raiding Iroquois that they quitted their territory in 1647, and withdrew to the more populous Huron towns. This migration had doubtless been in progress for some time.

The best evidence, therefore, seems to point to the Buchanan site, and what would seem to prove it is: (1) Ducreux's map places St. Jean Baptiste southwest of what I believe was intended, though perhaps confusedly, for Bass Lake. This map gives the positions of the missions about 1640, and Cahiague, which may be regarded as the predecessor of St. Jean Baptiste, would have a place in the same neighborhood. (2) Champlain's Itinerary agrees with this, for he distinctly mentions the vicinity of a small lake. (3) The formation of the ground in South Orillia, i.e. the formation and courses of the ridges, indicates that a trail passed from the south side of Bass Lake to Lake Couchiching, and then to the Narrows, which was the course Champlain took after visiting Cahiague. It is essential to collect further data, and understand all the facts, before we can finally determine the positions of Cahiague and St. Jean Baptiste at all the different parts of the historic period.

For various reasons, I am inclined to regard the Arendarronons, or Rock "Nation," whose capital was St. Jean Baptiste, as Huronized Algonkins, and not Hurons in much else than language. In race they were closely related to the Algonkins, and, for that matter, so were all the Huron tribes. Their religion, myths, etc., so far as they have been recorded by contemporary writers, are chiefly Algonkin. Scarcely any of their myths and religious practices resemble those of the Iroquois, who were more distinctively national or representative of the Huron-Iroquois race than the

Hurons, if we can so name the race, the Iroquois having corresponded closely with the Sioux races of the Plains.

Trails.

No feature of the Huron occupation of North Simcoe is more important than their system of forest trails. The word "trail," as used here, means a path (more or less unbeaten) made through the high, open woods, and used by the Indians in going from one village to another. These followed the higher parts of the ridges, where the trees had lofty branches, and the woods were easily passed through. Perhaps "blazes" were sometimes used to mark trees along these trails, as it was a common practice among Indians to "blaze" trees, but it is very doubtful whether any general system of marking them was ever adopted, as the Indians had good instinct in the woods. Everyone knew the topography of his own district,—the slopes and courses of the ridges, the direction of the streams, the belts of hardwoods and evergreens, and other features. The trails of the Hurons were often used down to present times, as I have mentioned in former reports. As in Medonte and the other townships, the trails of Oro were mostly diagonal to the modern roads. This is a result of the physical features; the ranges of hills, the valleys, and the streams run this way. There were no canoe portages in Oro; all were forest or overland trails. From the important villages in the north half of the township, there were at least two trails down to Lake Simcoe.

The Main Trail, or Hawkestone Trail.

The more important one of the two trails just mentioned began at the outlet of Hawkestone Creek, and followed up the west side of the stream for a considerable distance, not immediately beside the stream, but along the ridges a short way from it. The Indians used it from the earliest times, and it was also a deer path; then the early settlers used it, about 1832 and later, on their way to Upper Oro, from Hawkestone, where there was a landing-place for settlement purposes. Yet I am informed that it was never widened into a waggon road, but was only a path, although in some places it was wide enough for an ox-team. I have not determined where it crosses Hawkestone Creek, but in the neighborhood of Mitchell Square it reappears along the east side of the creek, or at least I suppose it to be the same trail. It is probably the continuation of the Main Trail from Medonte toward Lake Simcoe, which we found crossing out of Medonte into Oro, in the sixth concession. At any rate, I have called it the "Main Trail," as its position would suggest this name [See also Site No. 29.]

We have thus found the Main Trail passing through Oro, Medonte, and Tiny Townships, to Cedar Point, on the northwest shore of the latter township. It runs in one general direction all the way for more than thirty miles, following the spine of the Huron country. Along its course over the chain of hills we have found many of the important towns or villages of the Hurons. There can be little doubt that it was much used in Huron days.

A trail evidently passed along the northern flank of the high ridge north of Rugby. Down to the present day the Rama Ojibways frequent the parts near where this trail passed, for the purpose of picking ginseng. This was the branch of the Main Trail to Bass Lake and the Narrows.

Trail to the Neutrals.

While investigating the Huron occupation of Oro, I had constantly before me the probability that the trail leading to the Neutrals might have passed through this township. So I gave some time and attention to making enquiries in the west side of the township for evidence of its course if it existed there. The overland, or forest trail, by which Brebeuf and Chaumonot went in 1640 on their famous journey to the Neutrals, necessarily passed around the head of Kempenfeldt Bay. But its course from this Bay northward for some distance, is not quite so evident. After making enquiries for the clearing up of this question, I have concluded that it passed through Vespra, west of the Little Lake in that township. From the increased number of remains in that locality, when compared with those in the west of Oro, and from the nature of the ground, it is evident the Vespra route was the one mainly used. It did not pass through Oro, except at the northwest corner of the township, where two sites (Nos. 1 and 2) indicate its course.

A trail went from Shanty Bay toward Gilchrist P.O., near site No. 21, and at the west half of lot 17, concession 4, it united with another branch from Crownhill. The latter came from the Penetanguishene Road, at lot 12, and crossed the Crownhill swamp at a narrow part (where a Trespass crossroad through lot 18, concession 3, still marks its course), before uniting with the former. The early Highland Scotch settlers in the northeast of Oro used these trails, or both branches of the one, as the Ridge Road was not open eastward much beyond Shanty Bay in the early days of settlement. This Gilchrist trail might have been used a little by the Hurons, but it evidently led to the Arendarrons in the east, and the swamps were too extensive to be regularly crossed, going by this trail toward the northwest corner. It was used within the memory of living persons, by Indians travelling overland from Barrie to Orillia.

It is probable the Penetanguishene Road was not an Indian trail, although sites occur along this early colonization road, and numerous streams take rise near it, where eligible spots for villages may be found. The trail marked on some old maps, and agreeing with this Road in a general kind of way, is doubtless the one to the Neutrals. But it should be remembered that any agreement in the courses of the two can be only accidental, because the Penetanguishene Road was surveyed in 1811, and opened in 1814, as the shortest and straightest route between Kempenfeldt and the head of Penetanguishene Bay. While, on the other hand, the trails of the aborigines take us back to nature itself, before the white man, with his straight roads, came upon the scene.

The Ridge Road.

This is the main highway from Barrie to Orillia, and was opened as a public road along the "Algonquin" lake ridge, in 1848, eastward from Shanty Bay, the westerly part having been opened before. It appears to have been an Indian trail, originally, as there are a few sites along the ridge, and no swamps to cut off the travelling. The ridge is almost continuous for a long way, and there are no streams flowing into Kempenfeldt Bay from the north, but a few small ones begin to make their appearance as soon as the lake itself is reached, near Oro Station. Sir George Head ("Forest Scenes") mentions the ridge running into Oro from the head of Kempenfeldt Bay, which he found passable as a trail in 1815. But I have not met with any other tradition of it. Nearly all the sites found along the top of this ridge yielded European relics.

Other Transverse Trails.

There are evidences of some local trails, crossing the "Dry Hills" from southeast to northwest, but I have not marked them upon the map, as I have not met with any tradition of their existence in modern times, and their terminations, if marked, would be conjectural.

CATALOGUE OF VILLAGE SITES.

The Northwest Group of Sites.

1. On the south half of lot 39, concession 1, George McLean. On sandy soil, near a spring (now nearly dry), and a swale. Remains have been found on a patch of five acres or more, but they were most numerous at the spring, which is the source of a stream called Bishop's Creek, or sometimes Lang's Creek (so-called after early settlers). The original wood was chiefly maple. There were four or five artificial holes at the site, perhaps empty single graves or caches. Among the relics found were two or three iron tomahawks, besides animal bones, etc. Some of the pipes had the Huron trumpet-mouth pattern. Several human bones (thigh bones, lower jaws, etc.), were ploughed up near the surface, in scattered positions, as if no care had been taken of their dead. [It may be recalled in this connection that captives or prisoners were usually eaten, and their bones received no regular burial.] A man who lived here many years ago, when describing these human bones to me, spoke of them as the skeletons of two or three persons. Relics of various kinds, indicating camps, have been found on the adjoining farm southward (s. half lot 38, Henry Minty's). Another stream rises here, and it may be found that these camps belonged to a village quite distinct from that on Mr. McLean's.

2. On lot 35, concession 1. The Penetanguishene Road passes through this site; and as it is thus readily seen, and is often talked about, the place has received the name of "Pottery Hill." On account of its situation on a public road, the site on "Pottery Hill" is well-known to every person in the locality, and it has enjoyed

greater distinction than many another site which is really more important. Various persons have occupied the land on the Oro side; among these have been Henry Cannon, Paul Sheffield, and Ephraim Salisbury. The site extends into the farm of John Marshall, lot 35, concession 1, Vespra Township. The whole site occupies a hill, surrounded by ravines, and was, perhaps, palisaded. Three or four acres is the extent of land over which ashbeds and relics have been found. As is usual at nearly every other village site, a spring issues near at hand, and from it, no doubt, the Indians of the village got their supply of fresh water. It is on the land of Mr. Marshall, and is the source of a small stream that runs to Willow Creek, in Vespra. One man found here a coin, or ornament, the only European article that has been reported to me as having been found here. Another observer, whom I interviewed, remarked that he saw corncobs (carbonized) dug out of the refuse heaps; this goes to prove that the site was of Huron origin. One early observer of this site was R. W. Douglas of Toronto, who obtained pipes and other relics from this place in 1878. Large quantities of pottery fragments were to be seen at that date, and he considered it had been used as a pottery. The name "Pottery Hill" perhaps also implies this view. But this is a common error in regard to the deposits of refuse on early sites; such heaps are always thickly mixed with pottery fragments. In the collection at Toronto University Museum, the description of No. 17 is:—"3 clay pipes (imperfect) from a mound on Penetanguishene Road, near Hillsdale—R. W. Douglas, donor." (The mound is, of course, a refuse heap, and not a burial mound, in the special sense of the word.) There is no evidence at hand that should lead us to assign this site to a late part of the historic period of the Hurons.

3. On lot 40, concession 2, Joseph Jennett has found a few Indian remains, including a stone axe, or "skinner," a human skull in one place and a thigh bone in another. He has not found ashbeds; the place is rather too dry for permanent camps, but might have been part of a cemetery in connection with an adjacent village site in Medonte, just over the townline. (Probably site No. 49 in our catalogue of that township.)

4. On the west half of lot 3, concession 3. George Sargeant. Mr. Sargeant, who has lived here for thirty-six years, has found pipes and pottery fragments on the hill northeast of his house, but has observed no ashbeds. There is a spring about a quarter of a mile westward, but the land at the site itself is very high and dry, being about 600 feet above Lake Simcoe.

5. On the east half of lot 3, concession 3 John Shaughnessy. This site extends into the east half of lot 2 (Jas. Fraser's). Several clay pipe bowls of the pattern which I have provisionally named the Belt pattern, have been found here. (See Medonte Report, p. 77.) No iron relics are found. The high, dry land hereabout yields good Indian corn at the present day. In a deep glen northward, good springs are found.

6. On the west half of lot 1, concession 4. The usual relics, indicating camps, have been found on the portions of this farm occupied by John Elsmere and Joseph Elsmere, sr., respectively. And a little way up the high hill westward, on a flat patch of ground on the east half of lot 1, concession 3, workmen unearthed an Indian's skull near the present townline. Strong springs issue near where the camps were placed.

7. On lot 2, concession 4. Geo. Kissick. Here, as at so many other Huron sites, a few single graves were found on or near the site of the village. No iron relics have been reported.

8. On the east half of lot 1, concession 5, J. J. McNally, owner (absentee). Geo. Cook became tenant last spring, and has found pottery fragments, etc., southeast of the barn, on a plateau, near deep ravines. There are no surface springs anywhere, and the land is very high, that immediately to the west of the place being the highest part of the Dry Hills. When Mr. McNally himself occupied the farm, some relics were found.

9. On the west half of lot 4, concession 4. George Henry Eddy formerly occupied this farm, and found some remains of the usual kinds. The land is now under sod, and nobody lives on it. It is owned by James Hewitt, of Edgar.

10. On the east half of lot 33, concession 2. Joseph Bertram. The occupants have found pottery and pipe fragments, stone "skimmers," flints, etc., but the site is apparently small.

11. On the east half of lot 6, concession 3. Alexander Eddy. At the small grove of second-growth pines south of his dwelling, Mr. Eddy has found pipes, pottery fragments, stone axes, etc., but no iron relics were observed by him.

12. On the northwest quarter of lot 7, concession 4. Wm. Weeks. Mr. Weeks has found a few remains of the usual kinds.

13. On the east half of lot 8, concession 4. Joseph Cavanagh. His father, Patrick Cavanagh, settled here many years ago, and found the usual pipe stems, pottery fragments, stone axes, etc. (but no iron relics), on a patch of elevated ground north-west of the farm buildings. There are no surface springs now, and no water is obtainable by digging, as they once dug a well 120 feet deep and got none.

14. On the west half of lot 29, concession 2. Jas. Milbee. The Milbee homestead. When the elder Milbee lived here, a number of years ago, they found ashbeds, pottery fragments, stone axes, etc. The site is on the ridge eastward; it is only three or four rods square. No iron relics have been reported. The Hurons appear to have followed the ridge here, which runs toward the north-west.

15. On part of lot 27, concession 2. Robert Milbee. The remains were found near the east end of this farm, on the high ground. They were found more especially when Mr. Gardiner owned this farm. The woods covering the ridge here contain a large proportion of beech trees. It is but a short distance from the place where the remains were found to the bonepit mentioned

under the next number, and there might have been some connection between the two.

16. On the northwest quarter of lot 9, concession 3. John Harrison. Many years ago Mr. Harrison's son found a bonepit here. He had been sent to dig a grave for a small dog that had died, and on digging into a hollow a few yards south of their dwelling-house, he found the deposit of human bones. According to Mr. Harrison's statements, the pit was about 14 feet in diameter. There was a sinkage of the ground about two feet below the surrounding level; then, the deposit of bones was about two feet thick, thus making the bottom of the pit about four feet from the level of the ground. Mr. Harrison took out about 20 entire skulls from the part he dug. About the year 1876, or perhaps earlier, Rev. S. N. Jackson, M.D., and Rev. E. D. Silcox, Congregational ministers, then living in the neighborhood, made some examination of the pit. It was estimated that it had contained 100 skeletons altogether, at the lowest estimate, some of the bones being of large proportions. No relics of any kind are reported as having been found in it, but Mr. Harrison found pipes, etc., when he first cleared the land near the pit. He observed no ashbeds; hence this might have been the cemetery of the next-named site, No. 17, which was upwards of half a mile distant, but quite large.

17. On lot 10, concession 3. John Thompson. Formerly occupied by T. M. Thomas. This site was large, remains having been found over an extent of nine or ten acres. Artificial holes in the ground occurred at it, and there were four or five refuse heaps. Bone needles, stone axes, grains of corn (carbonized) in considerable quantities, and other relics have been found, but no iron relics have been reported. The village does not seem to have had much attempt at palisading. It is the best known site in this neighborhood, perhaps because some of the ashbeds with pottery fragments can be seen along the roadside, where passers can readily observe them. The bed of a stream (now dry) crosses the road here. It seems to have been the chief village in this vicinity, and the last-mentioned bone-pit, No. 16, was probably its cemetery.

18. On the west half of lot 17, concession 1. Chas. Partridge, sr. The site covers an acre, more or less, on top of a hill. The relics found at it include fragments of clamshells, pottery, clay and stone pipes, flints, etc. These were found many years ago, when the patch was first cleared, but ploughing has almost obliterated the evidences of occupation. No iron relics have been observed. The site now has no springs or other water supply closer to it than a swamp at some little distance. At the foot of the hill on which the village stood there are ridges that might be taken for fortifications. But it is probable they are ice-reefs, like others to be seen at many places along the valley of this Crown-hill creek.

19. On the northeast quarter of lot 15, concession 3. John Elliott. Remains of camps were found on a peak of raised ground

between two streams which meet. No iron relics have been reported.

20. On the west end of lot 11, concession 1. On the south-west corner of this farm, at a house now occupied by Daniel O'Rourke, many years ago numerous pottery fragments and stone axes or chisels were found. Some people supposed this was where pottery had been made, as the fragments were very abundant. But this is a common error regarding refuse heaps at sites. The village or camps stood on the edge of the Crownhill swamp.

21. On the east half of lot 20, concession 3. Geo. Caldwell, sr. Mr. Caldwell found some pieces of Indian pipes, etc., on a ridge of light soil in one of his fields when it was first cleared. The remains were not extensive, but are sufficient to indicate former occupation, as also the course of a trail which passed through his farm going to Shanty Bay. (See under "Trails" in the Introduction.)

22. At Kempenfeldt Point, in the brickyard. Flint spearheads, pipes, etc., were found here by George Johnson several years ago. These were found a few inches below the surface, when removing clay to make bricks. Also some stone chisels or axes, pipe bowls, an iron knife, and some human skeletons, three or four crowded into holes, and a child's in a board coffin. The last named was evidently recent. They were found by Wm. Crowe, who lives near the place and often worked in the brickyard. This Point was a landing-place for Indians down to recent years, and the Hurons might have used it in their day, although pottery fragments have not been reported. Ojibway Indians some years ago also camped a few hundred yards northeast of the Point. I will quote from a letter written to me in 1897 by Dr. C. N. Laurie, of Cobocok, Ont., who spent his boyhood near the place:—"Indians used to camp at the foot of the hills east of Kempenfeldt Hill and Point, on the road leading to Shanty Bay. There used to be many small pine trees there, and perhaps they are there yet. My grandfather, the late Thomas Drury, said that the Indians camped there every summer as long as he could remember, and he first came to the country in 1819. The place was fenced in about 15 years ago (in 1882), after which the Indians ceased to camp there."

23. On the west half of lot 27, concession 4. Some time before 1887, James Ross, who was then the occupant of this farm, found in his orchard an iron tomahawk, two flint-lock pistols, but no pottery fragments. A paragraph in the Barrie "Examiner," Feb. 13, 1890, adds that a flint-lock gun and a sword were also found. South of this place there is a cove on the shore of Kempenfeldt Bay, where there is a good landing-place. The spot is on the brow of the ridge, overlooking the "Algonquin" shoreline.

THE EASTERLY GROUP OF SITES.

24. On lot 3, concession 7. Ebenezer Walker. Remains were found west of the farm buildings on the east half, on a flat, ele-

vated piece of ground. Among the relics found here was a stone mortar. A bonepit was found about 60 rods distant to the west, on the southwest quarter of lot 3. It was discovered and first opened about the year 1857 by William Walker, of Coulson, who gave me particulars of it. He appears to have been the first person to make an opening in the pit, but he did not dig to the bottom. Others did so at later times. A large pine grew over the pit. Mr. Walker, in the course of his digging, found no brass kettles in it or other articles of European manufacture; but another person informed me that brass kettles were subsequently found in it, though I have had no confirmation of this story and am inclined to disbelieve it. The late F. Whitelock informed me that the three bonepits of this neighborhood (i.e., this one and the two mentioned under No. 26) were excavated by persons from Orillia. The only articles, besides bones, that I have positively known to come from this pit, were a copper ring (or perhaps brass) and a pipe. The late J. M. Hunter and the writer examined it briefly in 1888, but the pit had evidently been thoroughly dug out previous to our visit. It was in porous, sandy soil. I estimated, from its dimensions, and from the various accounts of the diggers, that it originally contained about 150 skulls, or skeletons. Mr. Walker has found relics near the pit itself, and the owner of the northwest quarter of lot 3, Chas. Emms, has also found numerous remains on his land.

25. On the west half of lot 4, concession 7. Mr. Cook. The occupant's brother, George Cook (now of the e. half lot 1, con. 5), occupied this farm until April, 1902, and found many relics, chiefly broken ones, on this site, but no iron ones. It appears to have been extensive. The occupant found some iron tomahawks in this neighborhood. It is not far from the bonepit mentioned under the last site, and may have been contemporary and connected with it.

26. On the west half of lot 3, concession 8. Neil McNevin. The marks of about twenty Huron lodges, having in nearly every case three fires for each lodge, were to be seen over an area of about three acres (not more), when I first visited the site on Aug. 27, 1887, and June 11, 1889. The Huron lodge form was more discernable on the ground here than at any other place seen in my archaeological visits. The village was probably palisaded, as it was situated on rising ground, almost surrounded by ravines. The south edge of the site extends over the boundary of this farm into lot 4. In the ravine along the west side of the site, there is a streamlet, which flows to the Coldwater River. It was evidently a village of considerable importance. Jas. Davis, now of Orillia Township, cultivated the west half of lot 4 for a term of years, and the part of the site on his land was used by the Davis family as a garden on account of the great richness of the soil. To Mr. Davis and family I am indebted for aid in my researches at this site, as well as at other places. They readily gave me several relics which they found, and these were sent by me to the Provincial Museum. The public spirit shown by them is highly commendable.

A list of the relics (with their catalogue numbers) is here given, as they are typical of a Huron village. The preponderance of bone relics is worthy of note in connection with this purely Huron site. From Jas. Davis : A grotesquely modelled black clay pipe (6920), this fine specimen is fully described at p. 51 of the Archaeological Report for 1896; the illustration is herewith reproduced. Stone axe (16,332); clay pipes (16,336), (16,337); a toy, or miniature, clay pipe



was found by a member of the Davis family; (it is described and figured at page 45 of the Archaeological Report for 1898, bone chisel (16,920); pointed bone (16,921); arrowhead, two imperfect bone awls, beaver's tooth, blue glass bead (European), and two imperfect soapstone specimens (all 17,824). From Neil McNevin, the owner of the land, I received : Bone awl or needle (7,916); bone chisel (16,898). The only articles of European manufacture reported as having been found here were an iron tomahawk, found by Mr. McNevin, and the blue glass bead above-mentioned. The village thus obviously belonged to an early date. Black pottery ware, of which the pipe, No. 6,920, is a specimen, is not very common on Huron sites. It is said to have been produced by double burning, or kilning. After the first fire had made the clay articles intensely hot, the bright coals were raked away; and from the fresh fuel then applied the smoke stained the pottery a black color throughout its entire thickness. (See Mason's "Woman's Share in Primitive Culture," p. 106). Two bonepits of medium size were found a hundred yards or more to the southward, on lot 4. They had been thoroughly ransacked when I saw them. Having been guided to them by Jas. Davis, I estimated that each had contained somewhere from 100 to 150 skeletons. Pipes were the only relics said to have been found in them, besides bones. Some medical students, natives of this township, had obtained crania and other bones from them. Southeast of these pits there were from 50 to 100 shallow pits to be seen, in 1889. The place was then in woods, but has since been cleared. This was probably

the scaffold-patch, or place of temporary burial; or the irregularities may have been due to heaps of earth for a cornpatch.

27. On the east half of lot 4, concession 7. The land belongs to Alex. McLean, who lives about a mile distant. Wm. J. Hunter, jr., of the adjoining farm (lot 5), observed pottery fragments, etc., here, while at work on the land. I have been unable to ascertain the extent of occupation of the aborigines, but I judge the site was small and transient, as there is no surface water supply on the farm.

28. On the east half of lot 6, concession 8. Alex. Woodrow. Numerous springs rise in the sandy hills hereabout, and are sources of the Coldwater River. Remains have been found more or less frequently throughout a field of six acres. When it was first cleared several years ago, a few iron tomahawks were found, besides the usual relics of native manufacture. The occupant of lot 5, who is also Alex. Woodrow by name, has found remains on his land. The village on lot 6 might have been the village of which the next number was the burial place, the distance between them not exceeding half a mile.

"Dr. Bawtree's Burial Pit, No. 3."

29. On the east half of lot No. 7, concession 8, may be seen the best known archaeological feature in Oro, two bonepits having been found near the dwelling house many years ago. When the first of these was discovered, the farm was occupied by Malcolm McArthur. He had settled upon this farm before 1837, and had lived there more than ten years before the discovery of the pits. The farm is now occupied by the Robertson brothers. The larger pit contained :— A large number of human bones (some of which were of mammoth proportions), brass kettles (many or all of which were damaged by having a hole knocked in the bottom); a piece of fur; a braid of hair; beads, etc.. John C. Steele, Esq., of Coldwater, has a well-preserved conch shell, found by John Galbraith in this bonepit. Galbraith kept a tavern about two miles from the pit, when its fame was greatest, and he appears to have done more digging in the pit than anyone else. The shell, when found, had the end rubbed, or drilled, off, so that it could be used as a horn. The Jesuit Relations mention that these shells were in use among the Hurons as trumpets. When Mr. Steele lived in Oro,—about five miles from the pit,—his family used the shell as a dinner horn. It could be heard two miles away, and was known as "Steele's horn," though always in a dryly humorous way, because it made the neighbors feel hungry. Hence it came about that, in the nineteenth century, as well as in the seventeenth, "the horn of hunter was heard on the hills" of Oro. Mr. Steele informed me that nine brass kettles, all damaged in the way described above, were found in the pit. And I prefer to adopt nine as the number found, because other eye-witnesses have mentioned this as the true number, although exaggerated accounts have increased the

number to seventeen, and, in the case of one person, to sixty. South-east of the pits there is a sandy plain, overgrown, when I first saw the place in 1888, with second-growth pines. Here there was a curious network of apparently artificial arrangements on the ground (perhaps cornhills), which the settlers remarked when they first came to the neighborhood. On account of its peculiar appearance they called it the "Orchards," but I have been unable to understand the propriety of the name. No springs now exist on the surface anywhere near the pits or "orchards," the land being hilly and dry.

An account of one of the bonepits was written about the time of its discovery, by Edward W. Bawtree, M.D., of the Military Establishment at Penetanguishene, and appeared in the Edinburgh "New Philosophical Journal" for July, 1848. But Dr. Bawtree had no opportunity of correcting the proof of it; hence, the text which here follows is that of a corrected typewritten MS., sent by him to the Canadian Institute, Toronto, in 1894, which I am permitted to use in preference to the published texts.

Dr. Bawtree's Description.

"The third of these sepulchral pits (the first and second were in the Township of Tiny), which has been examined, is not in this immediate neighborhood. It is situated on lot 7, 8th concession of the Township of Oro, and was visited on the 4th of November last (1847). It had been opened by the proprietor of the land about a fortnight before. The land belongs to a Mr. Galbraith, an intelligent Highlander, who gave a very distinct account of the exploration of the pit. It has been cleared for several years, and no notice taken of the pit till the above time, when a new settler built a shanty nearly over it. A French Canadian, happening to come there to work at the house, immediately recognized its peculiar appearance, and told the people that if they would dig there they would certainly find plenty of bones and twenty-six kettles, a prediction which was speedily verified.

"The pit is on elevated ground, in the middle of a fine undulating and hilly country; but apparently without any particular relation in its situation to surrounding objects or places; except perhaps that it is on a short line of communication between Lakes Simcoe and Huron (now called Georgian Bay), [See 'Trails,' Introduction]; the soil is a light loam. It measures about fifteen feet in diameter; has the distinctly defined, elevated ring, but the centre less depressed than in those before examined, which may have arisen from the character of the soil or the greater bulk of its contents. On its margin grew formerly a very large pine, which was cut down at the clearing of the land. The roots of this pine had grown through the pit in every direction.

"The bones were scarcely covered with earth. They were of all sizes; Galbraith himself made a rough calculation of the number by counting the skulls from a measured space, which gave to the whole not less than fifteen hundred; this was probably an exaggerated number, though they undoubtedly amounted to several

hundreds. They were in good preservation; on some, pieces of tendon still remained, and the joints of the smaller bones were even unseparated.

"It was noticed that only a few of the skulls bore marks of violence; one, which was exposed in our presence, had a circular perforation on the top resembling a bullet-hole; and others, it had been observed, bore the appearance of having been 'tomahawked.' A similar observation was made on the size of these bones as had been on those found in the other pits—that some of the lower jaws were very large and would amply encircle that of a full-sized European. The cylindrical bones, however, did not appear to be of unusual size.

"As in the first noticed pit, were found also twenty-six kettles, four of brass and the rest of copper; one conch-shell, one iron axe, a pipe, and some of the lozenge-shaped beads (wampum). The kettles in this pit were described as being arranged in the form of a cross through its centre, and in a row round the circumference. From observations made with the compass, it is probable that the points of this cross bore relation to the cardinal points; two of them faced upwards, the others were placed with their base upwards.

"The conch-shell was found under one of the kettles; they had been carefully packed with beaver-skins and bark.

"These kettles resembled exactly those before described (see Dr. Bawtree's descriptions of his first and second burial-pits in Report on Tiny township), though they averaged of a smaller rim. They were in good preservation, but with this peculiarity that each had been rendered useless by blows from a tomahawk. That they had been intentionally cut into there can be no doubt, some bearing one, others three or four incisions, all of the same length and shape, and all on the bar of the kettle; they had evidently been made with an axe, and the size of the incisions seemed to correspond to the edge of one found with them, but no opportunity occurred of comparing them. Should any doubt exist as to the exact history of the pit, the fact of these kettles having been rendered unserviceable seems highly calculated to remove that doubt, as it appears to be a proceeding so very contrary to the habits and ideas of Indians in general."

[E. G. Squier, who quotes this description in his "Antiquities of the State of New York" (p.p. 100-107), makes the following note at this place: "Dr. Bawtree is mistaken in supposing this practice uncommon. The Oregon Indians invariably render useless every article deposited with their dead, so as to remove any temptation to a desecration of the grave which might otherwise exist. A similar practice prevailed among the Floridian Indians.]

"The conch-shell is smaller than those found in the Township of Tiny. It is in good preservation, though quite white, and in some parts has lost its smooth surface; a piece has been cut from it as in the last described. (See Dr. Bawtree's No. 1, Tiny.)

"A pipe was also found, which the person who explored the pit described as having been formed out of blue-stone or hard

clay, and very neatly cut in a succession of circles, the base nearly as large as a common tumbler. On one side it had a human face, the eyes of which were formed of white pearly-looking beads. This pipe was unfortunately destroyed by some drunken farmers while examining it. It was described as being remarkably handsome, and would have been more carefully preserved had the discoverer noticed its beauty at first, but in its dirty, soiled state he paid but little attention to it.

"An iron axe exactly similar also to that before mentioned, though of smaller size, was found, and a large quantity of the flat circular beads."

After describing a Huron Feast of the Dead and the formation of a burial pit, Dr. Bawtree proceeds:

"That the kettles which were found in Pit No. 3 in the Township of Oro were deposited there under some such circumstances seems most likely from the fact of their having been previously rendered unserviceable, this proving almost to a certainty that they were not placed there for any purpose suggested by their ideas of the future lot that attended their deceased friends, as a broken kettle would be even less serviceable to them in their happy hunting grounds than to those they left behind."

Sir Daniel Wilson makes a reference to this burial pit, and the preceding account of it by Dr. Bawtree, in his essay on shell articles, in the *Canadian Journal*, Series II., Vol. III. (1858), p. 399.

As to the exact position of the village belonging to this famous pit, I have not definitely determined it, though No. 28 is not too distant to have been the one with which it was connected.

30. On the east half of lot 2, concession 11, Thos. Jarratt, who has lived here for many years, has regularly found pottery fragments, pipes, etc., in and near the ashbeds on the high ground on this farm. Eastward, across the concession road, on the west half of lot 2, concession 12, numerous evidences of Huron occupation have also been found. The latter is the farm of the late Wm. Miller, the present owner being Donald McLean, although no person now lives on it. Isolated human skeletons have been ploughed up on this farm, on the hill adjacent to the land of Mr. Jarratt. An iron tomahawk or two have been reported, but relics of European manufacture are not numerous.

31. On the west half of lot 2, concession 13. The McKinley homestead, Donald McKinley being the present occupant. They have found pipes, stone axes, pottery fragments, etc., but no iron relics are remembered. Mr. McKinley, grandfather of the present occupant, found a human skeleton. A large sinkhole occurred on lot 1, not far from the site.

32. On the east half of lot 1, concession 13. Thos Hipwell. The site covers four or five acres beside Bass Lake. Mr. Hipwell found iron tomahawks bearing the French stamp, two round stones (large), pottery fragments, pipes (including a carved animal stone pipe, which his late father gave away). One of the camps had a pavement of burnt stones. When his father, the late John Hipwell, first settled here in 1849, black bass were very numerous

in the lake, and from this circumstance the lake got its name. Two acres of lot 1 are in the lake.

33. On the east half of lot 2, concession 14. John S. Nelson. Beside Bass Lake. Stone relics, especially stone axes, have been found in considerable numbers near the lake. An interesting stone relic, once found here, was an axe at one end and gouge at the other. The stone axe (No. 17785 in the Provincial Museum, Milne's collection) came from this site. Mr. Milne obtained an axe with a groove around it. It is worthy of note that many of the stone axes found here are very primitive in their workmanship. Although an iron knife and an iron tomahawk have been found by Mr. Nelson, it is apparent from the kinds of relics that races of aborigines lived here long before the Hurons.

34. On the west half of lot 6, concession 10. Wm. H. Crawford. There is a rift in the hills through this lot in concession 10, and a stream takes its rise near this site and follows through the glen between the hills, making its way at last to Bass Lake. The usual pottery fragments, pipes, etc., and a stone mortar, have been found here. There is a spring just a little north of Mr. Crawford's sawmill, where the Indians of this village could procure water. When I visited this place on July 11, 1902, three patches of blackened soil, mixed with pottery fragments, were visible in the garden on a hillside. Other camps and ashbeds occur near, and on the west side of the hollow in which the sawmill is placed some Indian remains have also been found.

35. On the west half of lot 6, concession 11. James Thompson. The camps were indicated by the usual pottery fragments, etc., which were found more abundantly near the edge of the swamp, through which flows the stream mentioned under the last site. Some years ago Mr. Thompson found a few iron tomahawks. In the field south of the dwelling-house, and occupying the space between the house and the crossroad, several pipes, etc., were once ploughed up.

36. On the east half of lot 6, concession 12. David Johnston. Ashbeds more than a foot deep were found here, chiefly beside the low ground of the adjoining swamp. The usual relics have been found. A human skull was unearthed beside the crossroad, and near this site. A few remains have also been found on the west half of the lot.

37. On the east half of lot 7, concession 12. Robert Johnston. Some clay pipes and other remains have been found here. There are some trenches or corrugations on the surface of the ground, supposed to be artificial. Donald Johnston of the west half of this lot (No. 7) has found a pipe and pieces of pottery on his land.

38. On the west half of lot 7, concession 13. The late Donald Buchanan, sr., was the first settler here, many years ago, and in early years began to find evidences of aboriginal occupation. His son Donald is the present occupant of the farm, and another son, Frank Buchanan, has also paid close attention to the remains of

the aborigines found here. Considerable remains of a town or village have been found, and, like the other sites hereabout, it was evidently connected with the fishery at the neighboring Bass Lake. The site has seven or eight acres altogether, on a raised plateau, which includes the present dwelling-house and farm buildings. In the garden of the original dwelling, beside a pond, there were thick deposits of ashes with relics and fragments. A few European beads and iron tomahawks have been found, but not in any great quantity. A few human bones have also been found. Dr. Bawtree of Penetanguishene made an archaeological visit here in 1848, or earlier, and obtained pipes, etc. There is a group of artificial holes (probably empty caches or empty single graves) on the higher ground southward from the site, but on the same farm. In consequence of the proximity of Bass Lake, fish bones have been found in the debris at this site in great quantities. This is an important site, and I have concluded that it represents the earlier position of the "capital" of the Rock nation of Hurons (Arendarronons), and was probably the town visited by Champlain and called Cahigue. My reasons for this view will be found in the Introduction.

39. On the east half of lot 7, concession 13. John Robertson. The ground is blackened with the camps of aborigines. The occupants have found stone axes, pipes, pottery fragments, fish bones, etc. The extent of the remains is not so great as at the last mentioned site on the west half of the same lot.

40. On the west half of lot 8, concession 14. Robert Roberts. This site is beside the road along the west side of the 14th concession, and also adjoins Mr. Coleman's land. (See next site.) Mr. Roberts has found pipes, pottery fragments, skinning stones, etc., but no iron relics, so far as he remembers. The field containing the site has seven acres, but relics are not found over all parts of it. It is situated on the north edge of the high ridge, and overlooks the valley that contains Bass Lake.

41. A site of some interest occurs on the southeast quarter of lot 7, concession 14, the owner of the land being Jas. (Michael) Coleman, and Arthur Mealing, tenant. It is near the boundary of lot 8 (the Jenkins farm), which is occupied by Donald Horne. There is a burial ground, at which single graves were numerous. The cemetery was in a valley, which had graves on both sides of it. There was no communal bonepit of any kind, so far as anyone remembers, with whom I have consulted regarding the place. The following description of it by Dr. Jas. N. Harvie of Orillia was communicated to me in a letter dated June 27th, 1889; it preserves a record of some of the more interesting features of the site: "It is on a slight elevation; soil, sandy; it is thickly studded with small trees and a few large pines, whose roots have penetrated and crossed many of the graves. My brother-in-law said it appeared as if, when the graves were made by the Indians, the space had been quite clear of trees, with the exception of a few pines, which have since grown and extended their roots very much; whilst a second forest of other trees has been since growing

up. The graves were comparatively numerous; he thought there would be somewhere about a hundred. Some years ago (probably twenty or thirty) a gentleman by the name of Donald Buchanan, sr. (see Site No. 38), dug up some of the graves and found, of course, many skulls; and it was observed that almost all (if not all) of these were gashed on the side, as if the Indian had been killed by a blow from a tomahawk on the side of the head. The wounds seemed to be almost all on the side of the head. . . . Mr. Buchanan gave one or two of the skulls to a doctor in Orillia." It is worthy of note in connection with the openings made in the skulls, that Huron Indians had a practice of making these holes in the skulls after death. This view is further strengthened in the present case by the fact that, as I am informed by Frank Buchanan, some of the thigh bones found here were also marked with tomahawks or other sharp tools. This could only have been done after death, and after the flesh had been stripped from the bones. The mortuary practices of the Hurons were quite unique in many respects; and the theory of a battle to account for singular markings on the bones will hardly explain the phenomena satisfactorily in the present case, or in many more where the theory is put forward.

42. On the highest part of the main ridge in the Dry Hills, but near the eastern end of the ridge, there is a site far away from any water supply. It is on the east half of lot 8, concession 7. Archibald McDuff. Numerous pottery fragments, pipes, stone axes, etc., have been found on Mr. McDuff's land. Across the concession road on the farm of George Strachan, lot 8, concession 8, some pieces of rusted iron implements were once found. And on the east half of lot 7, concession 7, the farm of Andrew Brown, adjoining Mr. McDuff's, there are some peculiar holes, apparently artificial. The relics found have been numerous enough to show that this place was frequented by aborigines; and as it lies upon the line, or close to the line, of travel from the northwest toward Lake Simcoe, it may be taken as a proof of the existence of the Main Trail thither. It was evidently a halting-place for those crossing the hills.

Along the south side of the Dry Hills, some village-sites are found at the edge of the swamp that nearly divides the township into two halves. We shall begin at the west curve of the swamp, near Edgar, and follow this chain of villages to the east side of the township.

43. On the east half of lot 10, concession 5. John Rowat was an early settler on this lot, and relics were found here in his time. John Hewitt, sr., of lot 11, is the present owner. He has found numerous remains, and has given some attention to them. The site covers about an acre, and may be a part of the next one, or may have had some connection with it. Springs are numerous hereabout, and on the lower ground a short distance southward there are many ice-reefs which have been by mistake supposed by some persons to have had an Indian origin.

44. A site on the west half of lot 10, concession 6, is notable for the finding of a bonepit at it some years ago. The land was owned and occupied at the time of its discovery by John Ashfield, and his name still clings to the pit when people are describing it. The present occupant is Thos. Hutchinson. The bonepit, which has been completely covered over, was situated near the banks of a small pond, which is fed by springs. Some relics have been found over the cleared portion of this farm, but more especially near the pond. The pit seems to have been found and excavated between the years 1862 and 1868. Prior to the last named year a doctor (probably Dr. Tache) excavated it, and took away a number of perfect crania. About 90 crania in all are said to have been found. A pine tree had grown over the bones; when it turned up it exposed them. The pit it said to have contained brass kettles, but this point is not fully confirmed. Another statement, that skeletons were buried with heads toward the centre, also lacks confirmation; it is more likely they were buried pell-mell, as in almost every other Huron bonepit. Grains of Indian corn, carbonized, and pottery fragments have been observed in the adjacent ground. It is probable this site, as well as the last one, and No. 17, belonged to the period of Champlain's visit.

45. On the east end of lot 11, concession 6. John Morningstar. Mr. Morningstar, having lived here for about 35 years, has had good opportunities for observing the traces of aborigines. Immediately south of his barn he has found pottery fragments, pipe stems and bowls, clam shells (he calls them "oyster" shells, as they were thicker than ordinary clams), fish-bones, etc., but no iron relics.

46. On the east half of lot 12, concession 7. The homestead of Sergeant Donald Grant, who settled here in 1832. Robert Grant is the present occupant. The site is where the dwelling-house stands, and in the orchard. It is near the source of a feeder of Hawkestone Creek, between the foot of the range of hills and edge of the swamp. The occupants formerly found relics, but only a few in late years. No iron relics are remembered. Modern Indians camped near at hand as late as 1885.

47. On the west half of lot 11, concession 8. Alex. McEachern. The owner has found pottery fragments, pipes, clam shells, etc., in considerable quantities on a low hill beside a supply of spring water. The remains of camp fires were formerly distinct, but ploughing has nearly obliterated them. No iron relics have been found. The Orillia "Packet" of Sept. 6th, 1900, has this brief notice of this important site: "Indian relics—pipes, tomahawks, spear and arrow heads, skinning stones, etc.—are still occasionally found in this part of the country. On lot 11, concession 8, of Oro, there has evidently been an Indian village, as large quantities of these relics were formerly found there, with traces of numerous camp fires. Some time ago Mr. A. McEachern, while ploughing, discovered two Indian skeletons just below the surface. They had evidently been doubled up and buried with little or no care. On finding them, a hole was dug, and the remains buried deeper."

48. On lot 12, concession 8. Wm. Clark. There is a raised patch of land projecting into the swamp from the north, and on this patch some evidences of aboriginal occupation were found—skippers, a pipe, etc., but no iron relics were remembered by Mr. Clark.

49. On the east half of lot 10, concession 9. Peter Gillespie. Some relics and a few other evidences of camps have been found here and on the opposite farm, but there is no convenient supply of spring water.

50. On the east half of lot 14, concession 9. William Rouse, jr. There was an old road, used by the early settlers, through the west part of this farm, and which was evidently the main Indian trail, converted to the white man's use. A few evidences of Indian camps were found—pipes, pottery fragments, etc. And there are reef formations on the farm which some persons suppose to be artificial. But as the 110 foot shore line comes into the farm, both on its east and west sides, and makes ice-reefs, the formations were doubtless produced in this way. (See Introduction.)

51. On the west half of lot 13, concession 10. James Horne. This farm has had several successive owners and occupants. It originally belonged to Neil Galbraith, then to Francis Baker, lumberman. During the ownership of the latter, Wm. McMullen and John Stonehouse were occupants. In the ashbeds, pottery fragments, pipes, stone axes, etc., were found in abundance. No iron relics have been reported. In a small ravine, near the site, there is a spring, which is the source of Brough's Creek, a stream of considerable size and importance in the east parts of the township. A little further down the stream from the source, on the farms next to Mr. Horne's, there are many old beaver dams. The camps were on the east side of the ravine, and may have been connected with the beaver-trapping at the adjacent dams.

52. On the west half of lot 12, concession 10. Henry Jermy. There is a low hill with a flat top, partly surrounded by ravines, where the farm occupants have found relics and other evidences of a village. Thus situated on an isolated, compact patch of this kind the village was probably palisaded. It is located upon the east fifty acres of the west half (formerly Wm. Harrison's fifty).

53. On the east half of lot 13, concession 11. William Johnston. Mr. Johnston has lived here for many years, and has been a good observer, having taken notice of many points and features in connection with this village-site. They have found pottery fragments, stone axes, pipes, etc., and a human jawbone, but he reports no iron relics. Mr. Johnston estimates the site covers two acres. It is near springs which flow to Brough's Creek, and also at an abandoned shoreline. When this neighborhood was in forest, deer had a runway toward Lake Simcoe, from the higher ground a little to the northwest of this place, and Mr. Johnston thinks this circumstance had something to do with the selection of the site. The old runway passes near this place, which is on the edge of the swamp, at a narrow part of it.

54. On the east half of lot 10, concession 11. Richard Anderson. He has found pottery fragments, a pipe, two iron tomahawks, and other evidences of early occupation; though these were probably not extensive, as there are no springs now at the surface of the ground. Mr. Anderson also found a few pottery fragments and skimmers on the east half of lot 11, concession 11, which he also owns.

55. On the east half of lot 11, concession 12. Alexander Brown. Camps strewn with pottery fragments, pipes, etc., were found beside the stream here (Rugby Creek).

56. On the east half of lot 12, concession 13. Silas Locke. Mr. Locke has found pottery fragments, etc., in a field north of his barn. The ground at the place is comparatively low, and near Rugby Creek. He has found skimmers at the site and elsewhere on his farm, but no iron relics.

57. On the northeast quarter of lot 10, concession 14. Thomas Morrison. There are about four acres on raised ground, on which remains have been found. This patch extends into the adjoining farm of Robert Anderson, southeast quarter of lot 10. There were some prominent ash-heaps, and quantities of pottery fragments, pipes, etc., have been found. There is conflicting evidence of the finding of two iron tomahawks. A boulder or two of some kind of ore was found on the site, its peculiar coloring having perhaps attracted the attention of the Indians. Mr. Morrison regards it as a "worship stone." In 1899 I obtained five typical relics from Mr. Morrison, and they are now in the Ontario Museum: 21370-71, two bone awls; 21372, part of small clay vessel, with finger-nail markings; 21373, two bone beads, one within the other, as found. A few single graves had stones in them besides the bones.

58. Along the south edge of the main swamp there are a few sites, but they are less extensive and numerous than those on the north edge. On the east half of lot 16, concession 6, John C. Steele, who formerly owned and occupied this farm, found some pottery fragments, a stone axe, and other evidences of the aborigines; but he said these were few in comparison with other sites. And the evidences have been obliterated by cultivation, as the present occupant, Peter McCuaig, has observed no signs of ashbeds or pottery fragments. The farm was originally the Dunsmore homestead.

59. On the east part of lot 15, concession 8. Robert Paisley. Some remains were found on this land, more especially when Jas. Coates lived on it. He found, about twenty years ago, some flints, pipe-heads, etc. The place overlooks the wide, swampy basin already mentioned. Originally it was cleared by the Bell family, who found the first traces of Indian occupation.

On the west half of lot 16, concession 12, the occupant, James Maudsley, ploughed up, about the year 1867, a sword or rapier of an interesting kind. This blade bears on one side the inscription, "M. C. Fecit," and on the other, "in Valencia." It was exhibited

at the Historical Loan Exhibition in Toronto in 1899 by its present owner, Lawrence Heyden. The place where it was found is not a village-site, and there is no site known to me within a mile of it. But it was in the course of a trail, on a gravel ridge near the south-east corner of his farm. A stone pipe was once found on the same farm, and other articles scattered here and there in the neighborhood show the course of the old trail.

60. On the east half of lot 15, concession 13. Harris Wigg is the present occupant. Formerly Silas Baskerville occupied it. Pottery fragments, pipes, stone axes, etc., were found here several years ago. Brough's Creek passes through the adjoining farm, on the north side.

61. On the east half of lot 16, concession 13. John Leigh. This is a somewhat important site. Remains have been found near springs, which are the source of a stream flowing eastward to Lake Simcoe. The relics, which include iron tomahawks, were numerous just south of an old orchard. Some of the pipe-bowls are of the Belt pattern (see Site No. 5)—a distinctively Huron pattern.

62. On the northeast quarter of lot 14, concession 14. Peter Robinson. The usual relics have been found here. Donald McCallum of the east half of lot 11, concession 13, found many relics here about 1884, including two stone mortars. No iron relics are remembered by Mr. Robinson. The site occupies about one-fifth of an acre, on top of the high hill overlooking the "Algonquin" shoreline. This abandoned shoreline built a large gravel bar across the valley of Brough's Creek here; and, as in so many other places, the Hurons evidently utilized this bar for the course of their trail across the valley toward the northeast.

63. On the east half of lot 20, concession 10. William Laughead. When Edward H. Allingham lived on this farm he found a few relics—a piece of a sword (rapier), two stone skinners, steel hunting knife, clay pipe—just enough to show occupation during the French period. The place is quite wet, and apparently unfit for permanent habitation; but it evidently marks the course of the old trail from Hawkestone to the interior of the township.

64. On the west half of lot 23, concession 9. Guy Kirkpatrick. The occupants have found pipes, pipe fragments, pottery fragments, etc.; and at a place near the barn they found a cache of nine stone axes. Six inches below the surface of the ground they found ashes, charcoal and pottery fragments. A boulder here showed marks of fire. On the adjoining farm of Archibald Ross, lot 24 (west half), a few remains have also been found.

65. On the east half of lot 24, concession 8. Richard O. Bell. This site is beside the Ridge road, which was probably a trail, and at the top of the "Algonquin" cliff. Mr. Bell has found the usual relics, especially when he dug a cellar for his house, including a human skull.

66. On the west half of lot 26, concession 9. Beside Lake Simcoe, at an attractive little cove in the shore. The land was for-

merly occupied by William Braydon, but is now unoccupied, though owned by Guy Kirkpatrick. (See Site 64.) This was an Indian landing-place from time immemorial, and a trail is said to have started from here into the interior of the township; but heretofore I have been unable to determine the course. Braydon found stone fire beds, pottery fragments, etc., and Capt. Burke, a lumberman who once carried on some operations here, is said to have found a sword at the place. On Mr. Burt's land, just eastward, isolated relics have been found.

67. On the west halves of lots 24 and 23, concession 12. This was a famous Indian landing-place at the outlet of Hawkestone Creek, and a trail ran from here toward the northwest. (See "Trails," Introduction.) William Hodges, the occupant, who has lived here since his birth in 1834, ploughed up some stone fire-beds, pottery fragments, iron tomahawks, etc. These were on the west side of the outlet of the creek, at the beginning of the trail. Similar remains have been found on the Capt. Davis farm, on the east side of the creek's outlet; and also at places nearer the creek itself.

68. On the east half of lot 19, concession 13. John Hazlett. The occupants have found on this site, at different times: two or three clay pipes, a stone pipe, some skimmers, and quantities of pottery fragments, but no iron relics. Patches of reddened and blackened earth mark the site, which is beside the 14th line, or concession. I have seldom found sites marked by red-colored soil where the camp fires were placed; but whenever I do find such indications, the site bears every evidence of being a very old one. Isolated skimmers have been found on the adjoining farm northward, lot 18.

69. On the west half of lot 19, concession 14. Alexander McPhie. The site is on the brow of the ridge overlooking the "Algonquin" shoreline, a little east of the farm buildings. The owner found there: pipes, flint knives, pottery fragments, brass or copper kettles, with a capacity of two or three quarts. These things were found when the land was first cleared; cultivation has partly obliterated the traces of the aborigines.

Barrie, Ont., Dec., 1902.

RAINMAKING.

Red Cloud, or, William Bill, or, as he is commonly called, Captain Bill (half Onondaga and half Cayuga), who lives on our Tuscarora Reserve, claims to be able to control the rainfall. When the Pan-American Exhibition was held, he states that during a long spell of rain he brought about a change, for which he was



Red Cloud.

well paid by some exhibitors whose interests depended on dry weather.

Herewith is his own account of the Rain Dance ceremonies:

"In the first place, you make fire, good burning fire, burn bright, then you put on some tobacco, not this kind you buy in a store, but good tobacco what is grown at home, good Indian

tobacco. Then the smoke goes away up. Then the chief speaks to Rawen Niyoh. He says to him: 'I want you to take care of the Indians, your own people. My family here, I want rain. Things won't grow, too dry, we must have corn, so here is some tobacco for you so you know we are here and want rain.' Then we make a dance and sing six songs for rain. This is the way we make a dance. We put up a pole about eight feet high, in the right place, feathers on top, eagle feathers if we can get them, fish-hawk feathers will do. Paint red in rings round the pole, make paint from a red stone we find in the creeks. Then we dance round the pole, go round side to the east, then to the north and turn west.

"We don't let no women come in this dance, they would spoil all the chances to get rain, women no good for rain-dance, but the women may bring cakes or anything to eat for the men.

"After the men done dancing outside, the women go into the longhouse and dance the Trotting Dance, then the Shuffling Dance, and after the Shuffling Dance the men have dances in the longhouse, and the women may mix with them.

"The Rain Dance may be at any time in the day or the night.

"When white men want rain they sometimes pay Indian a whole hog, or a bag of flour to bring it.

"If I want to stop rain, just put some ashes and coal and some tobacco in a little tin dish, and look towards the west, and just watch it."

REPORTS WANTED.

Readers who may have spare copies of the Ontario Archaeological Reports for 1886-7, or 1890-1, will confer a great favor by presenting them to the curator, who desires to have two or three complete sets bound.

A few copies of Notes on Primitive Man, 1895, are also required.

JOHN WESLEY POWELL.

(March 24th, 1834—September 23rd, 1902.)

Major J. W. Powell, A.M., LL.D., Ph.D., died at Haven, Maine, of arterial sclerosis, at sunset on Tuesday, September 23rd.

Born in Mount Morris, New York, he dwelt in Ohio and Wisconsin with his father's family, and afterwards settled in Northern Illinois, where he received a collegiate education and entered on a professional, scientific career. After the close of the Civil War, in which he served, he resumed professional work. In 1867 he took a class into the Rocky Mountain region, thus inaugurating the summer-school system. In 1869 he led a party through the Grand Canon of the Colorado, in one of the most remarkable exploring trips ever made in North America. This exploration grew into the United States Geographical and Geological Survey of the Rocky Mountain Region, of which he was made Director. In 1879 this survey was merged with three others in the United States Geological Survey, while the ethnologic work of the Powell survey was taken up by the Bureau of Ethnology, created at the same time, with Major Powell as Director. In 1880 he became Director also of the United States Geological Survey, which position he filled until 1894; subsequently he devoted himself to ethnologic researches.

Major Powell was prominently connected with many scientific organizations. He was the leading founder and first President of the Cosmos Club of Washington, in 1878, and of the Anthropological Society of Washington in 1879, and one of the founders of the Archaeological Institute of America in the latter year; he was President of the American Association for the Advancement of Science in 1888. At the time of his death he was Director of the Bureau of American Ethnology, a Vice-President of the American Anthropological Association, an editor of the *American Anthropologist*, an editor of "Science," a trustee of Columbia University, and a member of many executive boards of scientific societies.

Abbreviated from the "American Anthropologist."

